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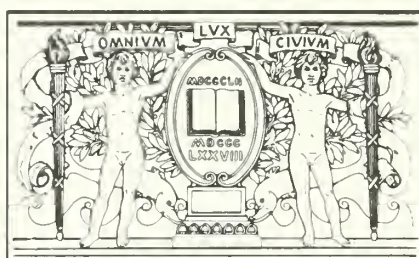
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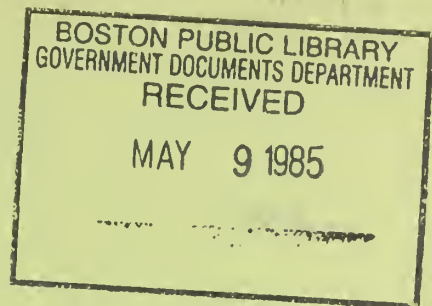
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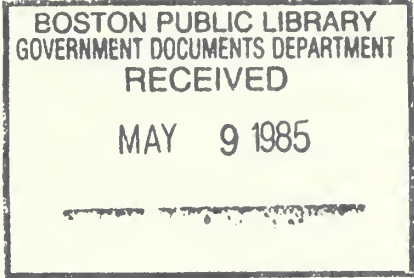
# THE BOSTON AREA AT WORK



A Socio-Economic Trends Study







The Boston Area at Work:  
A Socio-Economic Trend Study

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THE BOSTON AREA AT WORK:  
A SOCIO-ECONOMIC TREND STUDY

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(August, 1983)

United Community Planning Corporation (UCPC) is a private, volunteer-led, non-profit human services planning and research organization, whose history of accomplishments in the Boston area dates back to 1920.

UCPC works to improve human services in Greater Boston by determining unmet needs, recommending how to meet them, and demonstrating how to implement the recommendations.

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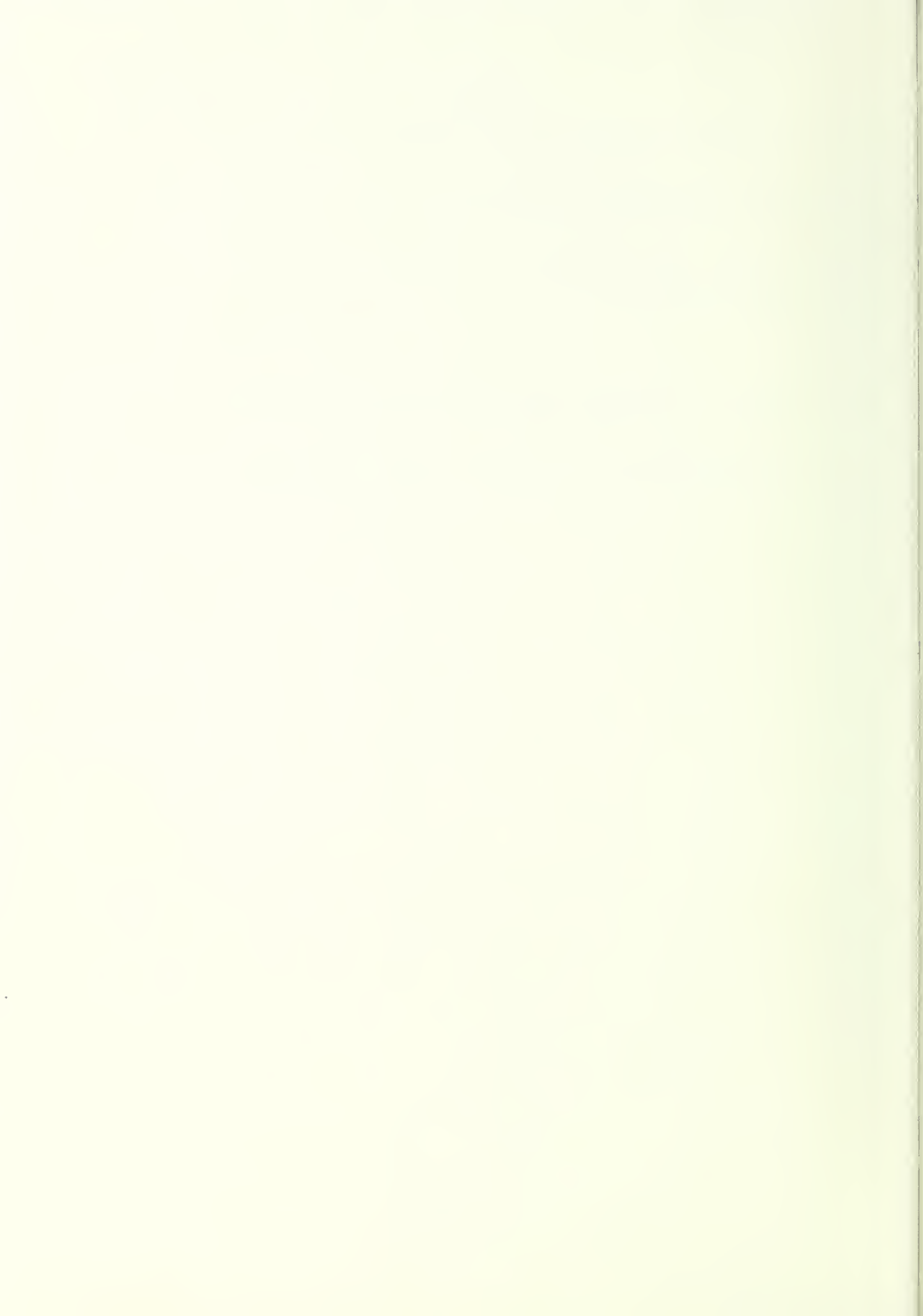


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THE BOSTON SMSA

Geographic Divisions

BOSTON

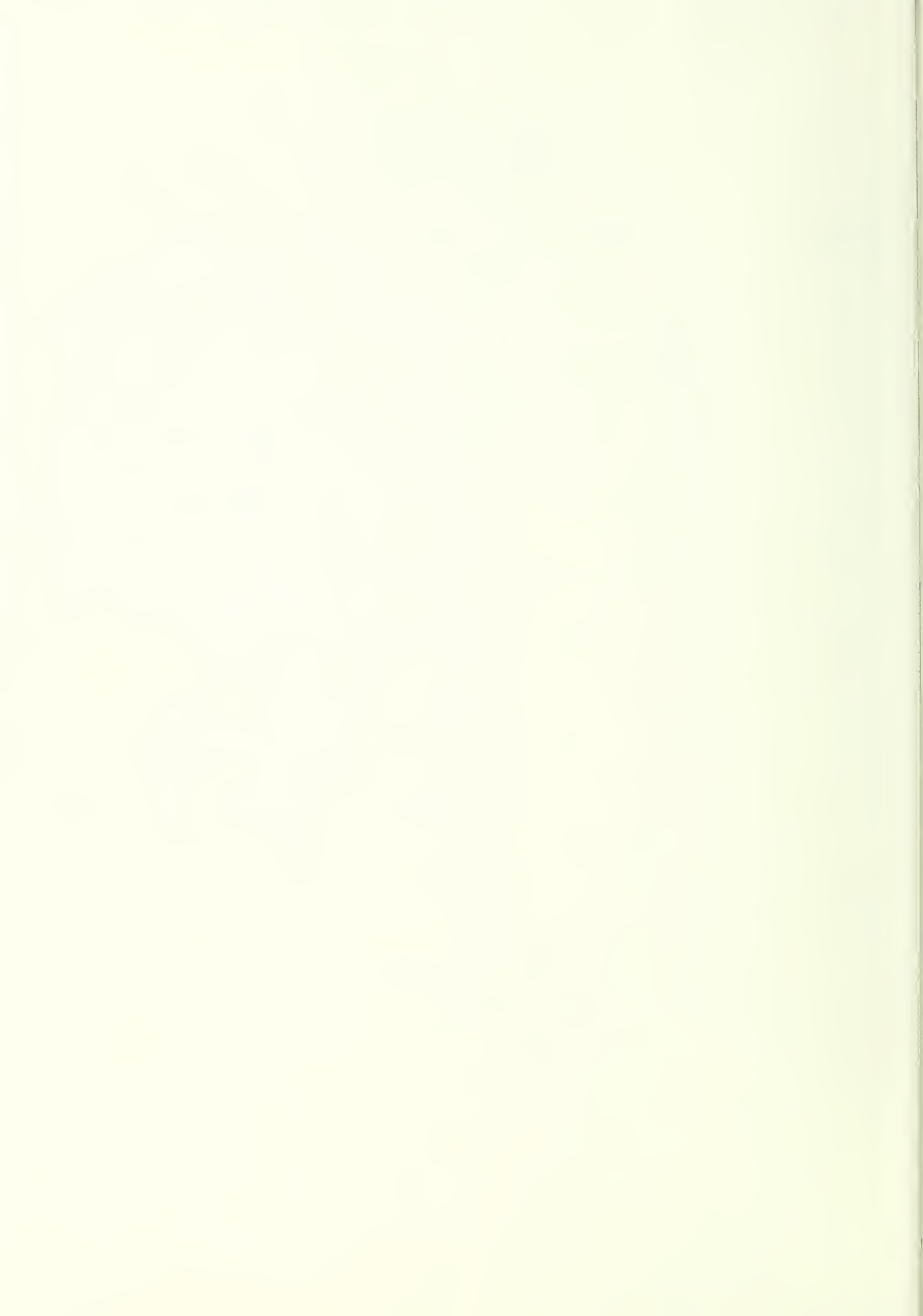
INNER SUBURBS

OUTER SUBURBS

Arlington  
Belmont  
Braintree  
Brookline  
Burlington  
Cambridge  
Canton  
Chelsea  
Dedham  
Everett  
Lexington  
Lynn  
Lynnfield  
Malden  
Marblehead  
Medford  
Melrose  
Milton  
Needham  
Newton  
Nahant  
Peabody  
Quincy  
Randolph  
Revere  
Salem  
Saugus  
Somerville  
Stoneham  
Swampscott  
Wakefield  
Waltham  
Watertown  
Westwood  
Winchester  
Winthrop  
Woburn

Abington  
Acton  
Ashland  
Bedford  
Bellingham  
Beverly  
Boxborough  
Boxford  
Carlisle  
Cohasset  
Concord  
Danvers  
Dover  
Duxbury  
Foxborough  
Framingham  
Franklin  
Hamilton  
Hanover  
Hanson  
Hingham  
Holbrook  
Holliston  
Hull  
Kingston  
Lincoln  
Manchester  
Marshfield  
Medfield  
Medway  
Middleton  
Millis  
Natick  
Norfolk  
North Reading  
Norwell  
Norwood

Pembroke  
Reading  
Rockland  
Scituate  
Sharon  
Sherborn  
Stoughton  
Sudbury  
Topsfield  
Walpole  
Wayland  
Wellesley  
Wenham  
Weston  
Weymouth  
Wilmington  
Wrentham



## I. INTRODUCTION

### A. The 1980 Census and its Usefulness to Human Services

This profile provides analyses of the socio-economic characteristics of the population residing and working in the Boston Metropolitan Area.\* It includes analyses of the types of industries in which people work, labor force participation, occupational structure, commuting patterns, educational attainment, and the median income earned by families residing in the area.

The data used in this report were gathered from the U.S. Bureau of the Census Summary Tape File (STF) 3A. The information on this tape was gathered from census long-form questionnaires which were filled out by a 19.4% sample of the population. The data were then weighted using reliable estimation factors, to reflect the entire population. These data, therefore, are sample data only, and may or may not exactly match previous census data released by the Bureau of the Census.

The 1980 Census is one of the most comprehensive data sources available in the country by which to gather current information on the characteristics of population and housing. The Census not only provides total population figures for states, counties, and towns, but also provides data which permit detailed analyses of the composition of communities as well. The value of the data to human service providers and planners is twofold. The data can be very helpful when attempting to do both long- and short-range planning, program development and evaluation, and market analyses. They can also be an important source of information when writing grant proposals, making allocation decisions, and in documenting the need and impact of services on the community.

One of United Community Planning Corporation's goals is to improve the quality and scope of information available to community decisionmakers, particularly the providers of human services. Included within this goal is the activity of processing and analyzing statistical data from the 1980 U.S. Census.

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\* Because of the diversity between population groups residing in Boston as compared to the suburban rings (defined as the towns located between Boston proper and Route 128, and between Route 128 and Route 495 respectively; see page iv. for listing of towns) individual analyses of these three areas will be included. Trend data 1960-1980 will be used when possible.





B. National Socio-Economic Trends: 1960 - 1980

The people of the United States, over the last decade, have had to adapt to a number of social and economic changes which affect the manner in which they live. Some of the more obvious events of the 1970's were the resolution of the Vietnam War, the recessions of 1972 and 1974, rapid growth in the health care and high-tech industries, rising interest rates and inflation, and unemployment. Events in the 1960's such as the Civil Rights Movement and the Women's Movement have also had continuing effects on the current characteristics of the population.

Some of the resulting socio-economic effects which these events have had on the national population include:

- o An increase in the number of people employed in service industries.
- o A decrease in the number of people employed in manufacturing industries.
- o An increase in the number of people employed in professional, managerial, and technical occupations.
- o A decrease in the number of people employed in manual labor occupations.
- o An increase in the number of women and minorities in the labor force.
- o An increase in the median number of years of school completed.
- o An increase in the number of minorities with income below poverty level residing in the central cities.
- o The movement of upper income groups to the suburbs.
- o An increase in the median family income earned.



## II. PEOPLE AND INDUSTRY

Before the 1960's Massachusetts was primarily a manufacturing state, with most of its heavy industry located in its larger central cities. The Boston area was the home of several manufacturing industries involved in the production of bakery and beverage products, textiles, leather goods, furniture and ships and ship repairing.

Since the late 1950's many changes have taken place in the industrial base of the area. What were once manufacturing industries providing necessity items such as food and clothing, are now industries that provide support to other service related industries, through the production of computer equipment, aerospace equipment, and health and scientific research tools. These new developments have led to an increase in the number of people employed in the fields of health and education, computer services, consulting services and banking and finance.

The City of Boston and its surrounding suburbs have traditionally been characterized as an industrial area, heavily reliant on the manufacturing of diverse product lines for employment. Many economists and researchers analyzing the plight of older industrial cities in the United States recently have described Boston as a 'dying' city because of these manufacturing foundations. Although this area does have its roots based in heavy industry, several changes in its manufacturing base have occurred over the last 20 years. The contention then, that the Boston area is deteriorating, although possibly true until the 1960's, may not hold true in today's social and economic environment.

Over the last 20 years, the industrial base of the country has shifted from a primarily manufacturing environment, to a more service related industry. These changes have affected the entire country. Massachusetts, and the Boston area specifically, have taken a leading role in the development of service industries.

Table I illustrates these shifts in Massachusetts and the Boston SMSA between 1960 and 1980.

As can be seen in Massachusetts, there have been increases in the number of employed people in almost all industries except non-durable manufacturing (clothing, food, and textiles: -101,713, 1960-1980)\* and personal/entertainment and recreation industries (-9,701, 1960-1980).

---

\* Minus (-) signs represent loss of persons employed in the industries designated. Plus (+) signs represent an increase of persons employed in the industries designated.





TABLE 1

EMPLOYED PERSONS BY INDUSTRY TYPE: 1960-1980  
 MASSACHUSETTS AND THE BOSTON SMSA  
 Universe: Employed Persons 16 Years and Over

4

INDUSTRY	1960		1970		1980	
	MASS	SMSA	MASS	SMSA	MASS	SMSA
AGRICULTURE, FORESTRY, FISHING AND MINING	27,360 (1.4%)	7,008 (0.7%)	23,702 (1.0%)	6,579 (0.6%)	23,885 (0.9%)	6,885 (0.5%)
CONSTRUCTION	99,823 (5.0%)	51,042 (5.0%)	122,932 (5.3%)	56,998 (5.0%)	111,541 (4.2%)	54,176 (4.1%)
MANUFACTURING:						
NONDURABLE	347,573 (17.4%)	136,898 (13.4%)	284,493 (12.4%)	100,895 (8.9%)	245,860 (9.2%)	85,380 (6.4%)
DURABLE	361,695 (18.1%)	157,536 (15.4%)	385,986 (16.8%)	153,651 (13.5%)	448,332 (16.8%)	176,049 (13.2%)
TRANSPORTATION	61,302 (3.1%)	38,312 (3.7%)	63,469 (2.8%)	37,158 (3.3%)	98,317 (3.7%)	54,722 (4.1%)
COMMUNICATIONS AND OTHER PUBLIC UTILITIES	54,162 (2.7%)	30,061 (2.9%)	68,537 (3.0%)	37,759 (3.3%)	66,490 (2.5%)	35,029 (2.6%)
WHOLESALE TRADE	65,911 (3.3%)	42,229 (4.1%)	98,384 (4.3%)	54,623 (4.8%)	100,400 (3.7%)	55,818 (4.2%)
RETAIL TRADE	280,609 (14.0%)	148,697 (14.5%)	364,512 (15.8%)	183,934 (16.2%)	409,023 (15.3%)	203,998 (15.3%)
FINANCE, INSURANCE AND REAL ESTATE	96,307 (4.8%)	62,810 (6.1%)	132,858 (5.9%)	85,417 (7.5%)	169,855 (6.3%)	104,535 (7.8%)
BUSINESS AND REPAIR SERVICES	47,724 (2.4%)	28,847 (2.8%)	69,524 (3.0%)	41,457 (3.6%)	110,793 (4.1%)	68,167 (5.1%)
PERSONAL, ENTERTAINMENT AND RECREATIONAL SVS.	96,714 (4.8%)	53,729 (5.3%)	88,780 (3.9%)	46,944 (4.1%)	87,013 (3.2%)	46,649 (3.5%)
HEALTH SERVICES	68,301 (3.4%)	36,617 (3.6%)	164,194 (7.1%)	87,267 (7.7%)	254,307 (9.5%)	138,806 (10.4%)
EDUCATIONAL SERVICES	113,441 (5.7%)	64,089 (6.3%)	202,171 (8.8%)	108,907 (9.6%)	277,907 (10.4%)	147,636 (11.0%)
OTHER PROFESSIONAL SERVICES	90,187 (4.5%)	53,821 (5.3%)	110,570 (4.8%)	68,004 (6.0%)	130,020 (4.9%)	79,122 (5.9%)
PUBLIC ADMINISTRATION	94,993 (4.7%)	56,668 (5.5%)	118,057 (5.1%)	66,881 (5.9%)	140,532 (5.3%)	79,248 (5.9%)
OTHER INDUSTRY	94,210 (4.7%)	55,361 (5.4%)	-	-	-	-
TOTAL EMPLOYED	2,000,312 (100%)	1,023,725 (100%)	2,298,169 (100%)	1,136,474 (100%)	2,674,275 (100%)	1,336,220 (100%)

SOURCE: 1980 U.S. Census of the Population and Housing, STF3A.



The number of people employed in construction, communication, and public utilities, increased between 1960 and 1970, and decreased from 1970 to 1980. The decade between 1960 and 1970 was one of rapid development for all industries, especially these three. From 1970-1980, however, the recession, as well as a slower rate of development, diminished the growth of these industries and lowered the number of employees.

People employed in agriculture, farming, and fishing, on the other hand, decreased from 1960 through 1970 and increased in numbers from 1970 through 1980.

In general, the greatest increases in employment within the state have been in the following industries: durable goods manufacturing (computer, aerospace, defense, and scientific equipment: +86,637, 1960-1980\*); business and repair services (data processing services and consulting: +63,069, 1960-1980\*); transportation (mass transit, bus lines and carpooling services: +37,015, 1960-1980\*); and health and education services (+350,472, 1960-1980\*).

The fields of public administration (+45,539, 1960-1980\*); finance/real estate/insurance (+73,548, 1960-1980\*); retail trade (+128,414, 1960-1980\*); and "other professional services" (which includes social services and excludes health) (+39,833, 1960-1980\*), have also experienced increases in the number of people employed.

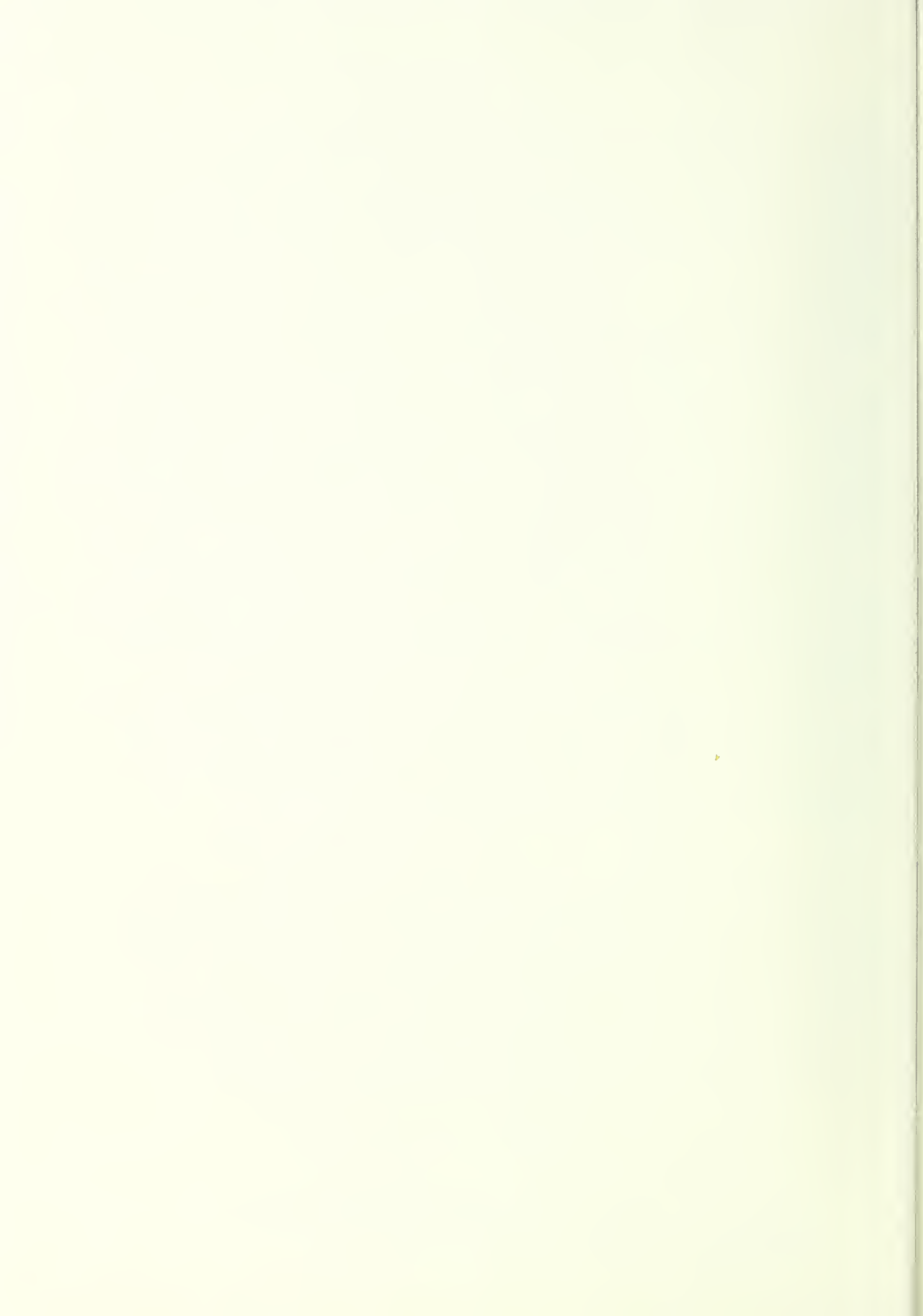
The largest increases of persons employed in most industries occurred between 1970 and 1980, except in the industries of education and health, public administration, and retail trade, which saw their greatest development in Massachusetts between the years of 1960 and 1970.

#### A. The Boston SMSA

The Boston SMSA experienced similar shifts in its industrial base, with the largest decrease in the number of employed persons in the industries of: nondurable manufacturing (-51,518, 1960-1980\*); and personal entertainment recreation services (-7,080, 1960-1980\*). The number of people employed in public utilities and construction increased between 1960 and 1970 and decreased between 1970-1980. The numbers employed in durable manufacturing, transportation, and agriculture, on the other hand, decreased between 1960 and 1970 and increased 1970-1980.

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\* Minus (-) signs represent loss of persons employed in the industries designated. Plus (+) signs represent an increase of persons employed in the industries designated.



The number of persons employed in all other fields increased, particularly within the business and repair industries (+39,320, 1960-1980\*); health (+102,189, 1960-1980\*); education (+83,547, 1960-1980\*); and retail trade (+55,301, 1960-1980\*).

The number of people employed in finance/real estate/insurance (+41,725, 1960-1980\*), public administration (+22,580, 1960-1980\*), "other" professional services (+25,301, 1960-1980\*); and wholesale trade (+13,589, 1960-1980\*), also increased significantly. Only the business and repair, health, and public administration industries saw their largest increases in the number employed between 1970 and 1980. All other industries saw their greatest increases in number of people employed between 1960 and 1970.

In terms of actual numbers, however, most of the employed people in the SMSA in 1980 were employed in retail (203,998), durable manufacturing (176,049), health (138,806), education (147,636), and finance/real estate/insurance (104,535). These industries employed 57.7% of all working people in the SMSA in 1980.

#### B. Area Analysis: Boston, Inner Suburbs and Outer Suburbs

The population within the SMSA is distributed such that 50.6% reside in the inner suburbs, 29.1% in the outer suburbs and 20.4% within the City of Boston. Of this population, the inner suburbs provide 51.6% of the total number of employed persons in the SMSA, the outer suburbs 29.2%, and Boston 19.2%. Forty nine and four-tenths of the people residing in the inner suburbs were employed in 1980, 48.6% of those in the outer suburbs, and 45.5% of the people in Boston. Table II illustrates this distribution:

---

\* Minus (-) signs represent loss of persons employed in the industries designated. Plus (+) signs represent an increase of persons employed in the industries designated.



TABLE II

Employed Persons as Percentages of the Total State Population  
and the Boston SMSA Population in 1980: Massachusetts, Boston SMSA,  
Boston City. Universe: Employed Persons 16 Years and Over

Geographic Area	Total Population	% of State Population	Total Employed (16 +)	% Employed of Total State Employed	% Employed of Total SMSA Employed
Massachusetts	5,737,037	100.0%	2,674,275	100.0%	----
Boston SMSA	2,763,357	48.2%	1,336,220*	50.0%	100.0%
Boston	562,994	9.8%	256,047	9.6%	19.2%
Inner Suburbs	1,397,093	24.4%	689,481	25.8%	51.6%
Outer Suburbs	803,270	14.0%	390,692	14.6%	29.2%
Other Mass	2,973,680	51.8%	1,338,055	50.0%	----

\* The total persons employed in Boston, Inner Suburbs and Outer Suburbs is 1,336,226 rather than 1,336,220 which is the total of the Boston SMSA. This six person difference is due to sampling error.

As proportions of the total employed people in these areas, the City of Boston has the highest proportions of people working in service industries\* (82.3% service, 17.7% manufacturing/construction), while the outer suburbs had the highest proportions of people employed in manufacturing and construction industries\*\* (71.3% service, 28.8% manufacturing/ trade/ construction). More people in the inner suburbs are employed in manufacturing and trades than in Boston, but fewer than the Outer Suburbs (Inner Suburbs: 76.0% service, 23.9% manufacturing and construction). Graph I shows the proportions of these populations employed within these industries.

---

\* Service industries include: Retail, Health, Education, Finance/Real Estate/Insurance/Public Administration, other professional services, Business and Repair, Transportation, Wholesale Trade, Personal Recreation, Entertainment and Communications/Public Utilities.

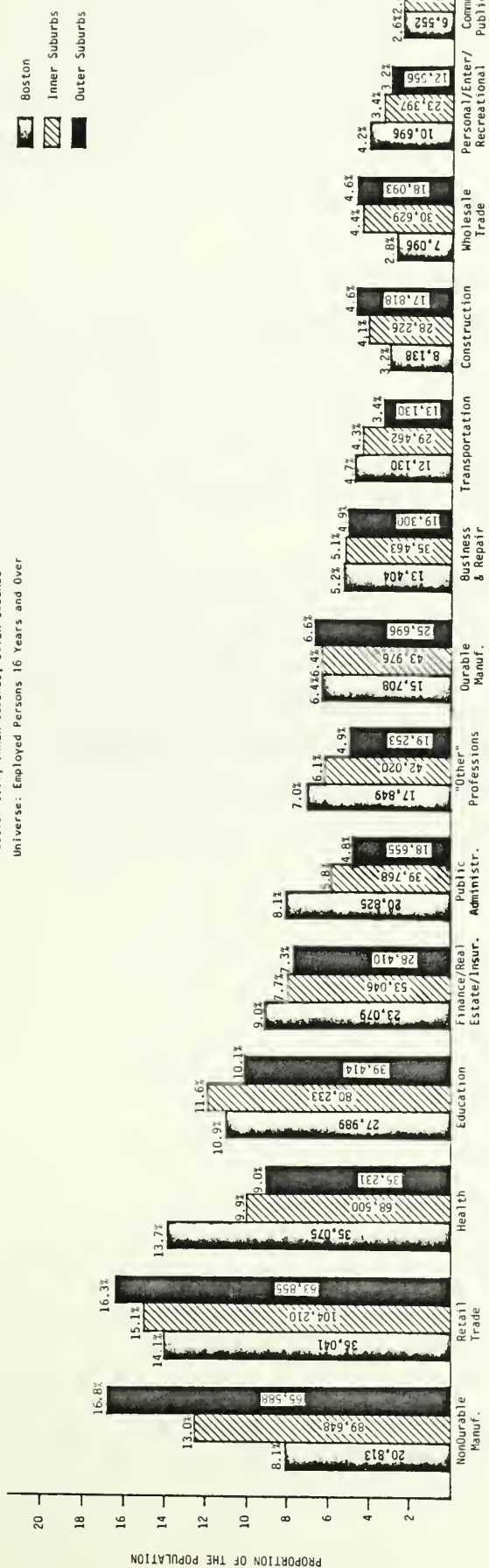
\*\* Manufacturing and Construction include: Nondurable and Durable manufacturing, construction, Agriculture, Farming, Fishing, and Mining.





GRAPH 1

PERCENT OF EMPLOYED PERSONS BY INDUSTRY TYPE IN 1980  
BOSTON CITY, INNER SUBURBS, OUTER SUBURBS  
Universe: Employed Persons 16 Years and Over





As the graph shows, the working population in Boston is employed primarily in retail trade, health, education, and finance/ real estate/ insurance industries. The population in the inner and outer suburbs, on the other hand, are employed primarily in retail, nondurable manufacturing, education and health. The proportions of people employed in education and health within these areas are distributed almost equally, although Boston does tend to have a higher proportion of people employed in health industries, and the inner suburbs population has a higher proportion in education.

Compared to the inner and outer suburbs, Boston has higher proportions of people employed in transportation, finance/ real estate/ insurance, entertainment and recreation, health, "other" professional services (e.g., social services), as well as public administration. The inner suburbs have the highest proportions of individuals employed in education, and the outer suburbs have the highest population in nondurable manufacturing, wholesale and retail trade, construction, agriculture, farming, fishing, and mining.

These data suggest that there has been a fairly rapid shift in the industrial base of the area from nondurable manufacturing to service-related industries since 1960. Analyses of the types of industries located in Boston, the inner suburbs, and the outer suburbs, show that the majority of service industries are located in Boston and the inner suburbs. Manufacturing industries, on the other hand, which were at one time located primarily in Boston, have moved further away from the city to the extended inner, and outer suburbs.



### III. CHARACTERISTICS OF THE LABOR FORCE

The economic development of any geographic area is dependent upon a number of factors. Favorable climatic conditions, the availability of resources, reliable transportation routes, and an available and trained labor force are most important of these.

Over the last 20 years, several changes have occurred, not only in the industrial structure of the country, but also in the characteristics of the labor force. Some of the best documented of these changes include the increased participation of women in the labor force, as well as a rise in the number of families with two or more workers. Also of importance are the changing patterns of racial and ethnic groups participating in the labor force resulting from changing Equal Opportunity/Affirmative Action regulations as well as familial roles.

#### A. Massachusetts

In Massachusetts between 1960 and 1970 the proportion of males employed\* in the civilian labor force increased slightly (.8%), but then reversed between 1970 and 1980 and declined by 3.2%. This trend was coupled with an increase in the proportion of males who reported themselves as "unemployed" (3.3% in 1960 to 4.0% in 1980) or "not in the labor force" (22.7% in 1960 to 24.5% in 1980).

Females steadily increased their participation in the labor force over the last 20 years. Between 1960 and 1980 the proportion of women employed in the civilian labor force in Massachusetts increased by 13.7% (from 36.4% in 1960 to 50.4% in 1980). This increase was followed by a decrease of 14.7% in the number of women who reported themselves to be "not in the labor force" in 1980. The remaining women who entered the labor force, but are not employed, entered the ranks of "unemployed". Table III exhibits these trends.

---

\* Employed: Persons 16 years and over who were currently working in a paying full time or part time position. This also includes people who worked 15 hours or more as unpaid workers on a family farm or in a family business.

\*\* Unemployed: Persons 16 years and over who were currently without a job but had been looking for work during the preceding four weeks and were available to accept a job.

\*\*\* Not in the Labor Force: Persons 16 years and over who were not classified as members of the labor force. This category consists mainly of students, housewives, househusbands, retired workers, seasonal workers in an "off-season" who were not seeking work, disabled persons, inmates of institutions, and persons working less than 15 hours a week in a family business. Also included are 'discouraged workers' who do not have a job and have not been actively looking for work in the last four weeks.



### B. The Boston SMSA

The labor force in the SMSA followed a pattern similar to that of the State. Between 1960 and 1980 the proportion of males employed in the civilian labor force rose (+0.6% 1960-70) and declined (1.4% 1970-80). The proportion of males who reported themselves as "unemployed" and "not in the labor force" increased slightly between 1960 and 1980.

Female labor force participation in the SMSA also followed a pattern similar to that of women in the State. Table III shows that the number of women employed in the labor force increased between 1960 and 1980 (+14.8%) in the SMSA, indicating that a higher proportion of women in the SMSA entered the labor force than women in the State (1.1% higher). As a result of this increased participation, the proportion of women reported as "not in the labor force" in the SMSA decreased by 15.8% and the proportion of women who entered the rank of "unemployed" increased by 1.0%.

Although the proportion of males employed in the SMSA decreased from 1960 to 1980, there was an increase in terms of real numbers of 11.6% (75,848) in the number of males employed in the civilian labor force. Employed females in the labor force increased by 63.8% or 236,647 between 1960 and 1980.

### C. Area Analysis: Boston, Inner Suburbs, Outer Suburbs

Over the past 20 years, the City of Boston experienced different patterns of labor force participation by both men and women than the populations of the state and the SMSA. As Table III exhibits, between 1960 and 1980 the proportion of employed males in Boston declined by 7.5%, while the proportion of employed females increased by 9.3%. In terms of actual numbers, this meant a decrease in the number of males employed in Boston of -39,636, while more males entered the ranks of "not in the labor force" (+6,135). Comparing the number of males who were unemployed in 1960 to those in 1980 there is very little change. In fact, there was a decrease in the number of males in this category. Between 1970 and 1980, however, there was a significant rise in the number of males who reported themselves to be unemployed (+39.0% 1970-1980 or +2,862).





TABLE III

LABOR FORCE STATUS BY SEX: 1960-1980  
MASSACHUSETTS, BOSTON SMSA BOSTON, INNER AND OUTER SUBURBS  
Universe: Persons Age 16 Years and Over in the Civilian Labor Force

LABOR FORCE STATUS BY SEX	MASSACHUSETTS			BOSTON SMSA			BOSTON			INNER AND OUTER SUBURBS		
	1960*	1970	1980	1960*	1970	1980	1960*	1970	1980	1960*	1970	1980
MALE:												
TOTAL IN LABOR FORCE	1,335,045 (100%)	1,424,666 (100%)	1,557,350 (100%)	680,217 (100%)	695,123 (100%)	765,914 (100%)	182,827 (100%)	151,566 (100%)	142,819 (100%)	497,390 (100%)	543,557 (100%)	623,095 (100%)
EMPLOYED	1,277,415 (95.7%)	1,371,867 (96.3%)	1,473,622 (94.6%)	652,620 (95.9%)	670,535 (96.5%)	728,468 (95.1%)	172,248 (94.2%)	144,221 (95.2%)	132,612 (92.9%)	480,372 (96.6%)	526,314 (96.8%)	595,856 (95.6%)
UNEMPLOYED	57,630 (4.3%)	52,799 (3.7%)	83,728 (5.4%)	27,597 (4.1%)	24,588 (3.5%)	37,446 (4.9%)	10,579 (5.8%)	7,345 (4.8%)	10,207 (7.1%)	17,018 (3.4%)	17,243 (3.2%)	27,239 (4.4%)
NOT IN LABOR FORCE	391,901	409,790	504,470	195,402	201,627	245,423	60,729	59,468	66,864	134,673	142,159	178,559
FEMALE:												
TOTAL IN LABOR FORCE	752,829 (100%)	964,753 (100%)	1,259,024 (100%)	383,408 (100%)	482,819 (100%)	633,388 (100%)	120,667 (100%)	127,041 (100%)	129,975 (100%)	262,741 (100%)	355,778 (100%)	503,413 (100%)
EMPLOYED	722,897 (96.0%)	926,302 (96.0%)	1,200,653 (95.4%)	371,105 (96.8%)	465,939 (96.5%)	607,752 (96.0%)	115,998 (96.1%)	122,284 (96.3%)	123,435 (95.0%)	255,107 (97.0%)	343,655 (96.6%)	484,317 (96.2%)
UNEMPLOYED	29,932 (4.0%)	38,451 (4.0%)	58,371 (4.6%)	12,303 (3.2%)	16,880 (3.5%)	25,636 (4.0%)	4,669 (3.9%)	4,757 (3.7%)	6,540 (5.0%)	7,634 (2.9%)	12,123 (3.4%)	19,096 (3.8%)
NOT IN LABOR FORCE	1,218,956	1,181,549	1,123,175	623,410	582,732	541,619	161,991	138,880	116,814	461,419	443,852	424,805

Source: 1980 U.S. Census of the Population and Housing, STF3A

\*The Universe in 1960 was Total Persons Age 14 Years and Over.



Female participation in the labor force in Boston increased 5.4% between 1960 and 1970 (+6,286). Between 1970 and 1980, there was an increase of .9% or 1,151 females in the labor force. The number of women who reported themselves to be "unemployed" during this period increased while the number of women reported as "not in the labor force" decreased continually over the last 20 years.

These trends, in part, were the result of the economic downturn between 1970 and 1980, as well as the influx of women and the "baby boom" generation into the labor force during these years. For males in Boston, these social and economic changes forced many out of the labor force as "discouraged workers". Females, on the other hand, have not been leaving the labor force but rather, have become "unemployed". In Boston where there is a more racially varied\* and less educated population\*\* than the inner and outer suburbs, the effects of these demographic changes are most apparent.

The labor force patterns of the populations of the inner and outer suburbs vary dramatically from those of Boston's population, and do in fact, more closely resemble the labor force patterns of males and females on the state and SMSA levels.

In both the inner and outer suburbs the proportions of employed males decreased slightly since 1960, while females increased their labor force participation. Between 1960 and 1980 the proportion of women employed in these areas increased at a faster rate than women's participation in other areas of the state (outside the SMSA), as well as in the city of Boston (18% inner and outer suburbs, 13.7% state, 10.3% Boston). This again reflects differences in the age and racial distributions of the populations residing in the city of Boston as compared to the inner and outer suburbs.

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\* See UCPC Report entitled: Greater Boston's Changing Population: Demographic Changes Between 1960-1980, 1983.

\*\* See Chapter on Education Attainment, page 35.



## 1. Racial and Ethnic Variation in Labor Force Participation

Variations in labor force participation of minority populations, as compared to that of whites, have been well documented. The general pattern, both nationally and statewide, of minority labor force participation has been one in which proportionally fewer minorities are employed, and higher proportions are unemployed or not in the labor force, than whites of the same age.

The 1980 Census figures for the Boston SMSA, show that these patterns in minority labor force participation are quite prevalent in this area. Not only are fewer minority members employed proportionately than whites, but higher proportions of these people are "unemployed" or "not in the labor force" than whites in the area. The data suggest that minorities are not only finding it difficult to obtain jobs, but also that many may be leaving the labor force as discouraged workers. When analyzing the employment patterns of minorities within Boston, the inner suburbs, and the outer suburbs, it is easy to discern where minority populations are finding it most difficult to compete in the labor market.

### a. Area Analysis: Boston, Inner Suburbs, Outer Suburbs

In 1980, 71% of the minority population residing in the Boston SMSA lived in Boston (169,057), 23% lived in the inner suburbs (55,980), and 6% in the outer suburbs (17,492). Analyzing this distribution, it is not unexpected to find that the greatest differences in labor force participation among minority populations exist among those residing in Boston as compared to those residing in the inner and outer suburbs. Tables IV and V display these patterns.

Within Boston, lower proportions of persons 16 years and over of all racial groups, except American Indians and Aleuts, were employed in 1979 than these populations residing in the inner and outer suburbs. Higher proportions of these populations were also unemployed and not in the labor force in Boston than in the suburbs.

These patterns were most pronounced among the Black and Hispanic populations, who make up the largest percentage of the minority population in the city. White, Asian, and Pacific Islander populations who resided in Boston showed much less variation in their labor force participation between geographic areas. American Indians and Aleuts, on the other hand, while greatest in number within Boston, had higher employment rates in the city than the same populations in the inner and outer suburbs.



TABLE IV

LABOR FORCE PARTICIPATION IN 1979 BY RACE AND SEX  
 BOSTON, INNER SUBURBS, OUTER SUBURBS  
 Universe: Persons Age 16 Years and Over

15

RACE BY LABOR FORCE STATUS	BOSTON		INNER SUBURBS		OUTER SUBURBS	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
<u>WHITE:</u>						
IN LABOR FORCE	108,360 (100%)	96,953 (100%)	377,323 (100%)	315,043 (100%)	226,308 (100%)	171,410 (100%)
EMPLOYED	101,601 (93.8%)	93,035 (96.0%)	360,018 (95.4%)	303,454 (96.3%)	217,354 (96.0%)	164,704 (96.1%)
UNEMPLOYED	6,759 (6.2%)	3,918 (4.0%)	17,305 (4.6%)	11,589 (3.7%)	8,954 (4.0%)	6,706 (3.9%)
IN LABOR FORCE	49,205	86,418	118,285	274,037	52,585	139,059
<u>BLACK:</u>						
IN LABOR FORCE	25,663 (100%)	26,276 (100%)	6,248 (100%)	6,399 (100%)	1,747 (100%)	1,462 (100%)
EMPLOYED	22,940 (89.4%)	24,228 (92.2%)	5,929 (94.9%)	6,096 (95.3%)	1,654 (94.7%)	1,370 (93.7%)
UNEMPLOYED	2,723 (10.6%)	2,048 (7.8%)	319 (5.1%)	303 (4.7%)	93 (5.3%)	92 (6.3%)
IN LABOR FORCE	13,274	22,914	2,389	3,862	1,241	896
<u>AMERICAN INDIAN/ALEUT:</u>						
IN LABOR FORCE	288 (100%)	266 (100%)	366 (100%)	287 (100%)	38 (100%)	52 (100%)
EMPLOYED	270 (93.8%)	250 (94.0%)	336 (91.8%)	264 (92.0%)	32 (84.2%)	37 (71.2%)
UNEMPLOYED	18 (6.2%)	16 (6.0%)	30 (8.2%)	23 (8.0%)	6 (15.8%)	15 (28.8%)
IN LABOR FORCE	128	318	84	237	18	20
<u>ASIAN &amp; PACIFIC ISLANDER:</u>						
IN LABOR FORCE	4,494 (100%)	3,535 (100%)	4,882 (100%)	3,957 (100%)	988 (100%)	817 (100%)
EMPLOYED	4,320 (96.1%)	3,298 (93.3%)	4,672 (95.7%)	3,784 (95.6%)	976 (98.8%)	803 (98.3%)
UNEMPLOYED	174 (3.9%)	237 (6.7%)	210 (4.3%)	173 (4.4%)	12 (1.2%)	14 (1.7%)
IN LABOR FORCE	2,081	2,510	2,013	2,629	225	842
IN LABOR FORCE	138,805	127,030	388,819	325,686	229,081	173,741

: 1980 U.S. Census of the Population and Housing, STF3A.





TABLE V

LABOR FORCE PARTICIPATION IN 1979 OF PERSONS OF SPANISH ORIGIN BY SEX  
 BOSTON, INNER SUBURBS, OUTER SUBURBS  
 Universe: Persons Age 16 Years and Over

LABOR FORCE STATUS OF PERSONS OF SPANISH ORIGIN	BOSTON		INNER SUBURBS		OUTER SUBURBS	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
SPANISH ORIGIN (ALL RACES):						
IN LABOR FORCE	7,108 (100%)	5,624 (100%)	5,171 (100%)	4,392 (100%)	1,506 (100%)	1,277 (100%)
EMPLOYED	6,322 (88.9%)	5,146 (91.5%)	4,850 (93.8%)	4,106 (93.5%)	1,449 (96.2%)	1,215 (95.1%)
UNEMPLOYED	786 (11.1%)	478 (8.5%)	321 (6.2%)	286 (6.5%)	57 (3.8%)	62 (4.9%)
OUT OF LABOR FORCE	3,668	7,264	2,208	4,116	381	1,048

: 1980 U.S. Census of the Population and Housing, STF3A.



## 2. Male and Female Labor Force Participation by Race

As well as the differences in labor force participation between racial and ethnic groups in the SMSA, several differences also exist between male and female labor force participation. Much of this variation, within all racial groups, is culturally, as well as socially prescribed. Sex role expectations, family patterns, as well as social injustice are a few examples of this variation. These differences are most clearly seen when analyzing the proportions of males and females who are employed or "not in the labor force" within Boston, the Inner Suburbs and the Outer Suburbs.

As a result of the racial distribution within the SMSA, it is not surprising to find that the greatest differences in labor force participation between males and females of the various minority groups in 1980 were found within Boston. Of the populations in the city, the highest proportions of women "not in the labor force" were found among the Hispanic, American Indian, Aleut and white races. Black, Hispanic and Asian and Pacific Islander women in 1980 were found to have the highest rates of unemployment compared to females of other racial groups.

Among males who lived in the city, Black and Hispanic males made up the largest percentage of minority males "not in the labor force", as well as "unemployed". Also, the lowest proportion of employed males were found within these two racial/ethnic groups. Asian and Pacific Islander males, on the other hand, had the highest proportion of males "employed", and the lowest proportion of males "unemployed" of all racial groups, including white males.

In the inner and outer suburbs, employment and unemployment patterns for males and females of all racial and ethnic groups tend to balance. In both of these areas much higher proportions of males and females are employed, and much lower proportions are unemployed or "not in the labor force" than in Boston. The population which does seem to be "at risk" however, in these areas is that of the American Indian and Aleut, whose labor force pattern shows high unemployment.



### 3. Number of Workers in Family in 1980

Just as the labor force participation of women and men has changed over the last 20 years, so has the structure of the family and the number of members needed to support the unit. Within the State and the Boston SMSA, this has meant an increase in the number of families being supported by two or more workers, and a subsequent decrease in the number of families supported by one person. Table VI shows that within the state in 1980, more than 57% of the families were supported by two or more workers, while 30% were supported by only one worker. This pattern holds true for the families residing in the Boston SMSA as well. Families which have "no workers" made up approximately 12% of the total families living in the state, as well as those in the SMSA. The data suggest that economic changes and societal influences over the last 20 years have had an effect on familial roles. They also suggest that there may be a growing elderly population within the state and the SMSA, making up a large portion of the percentage of families with "no workers" (these families however, also include those in which the members are "unemployed" or "not in the labor force").

#### a. Area Analysis: Boston, Inner Suburbs, Outer Suburbs

Within the SMSA, the highest proportion of families with two or more workers, and the lowest proportions of families with only one worker, or no workers, were found within the outer suburbs. These data coincide with those presented on Table IV, which show that the outer suburbs had the highest proportions of both men and women 'employed' in the labor force in 1979.

The City of Boston, on the other hand, had the highest proportions of families with "no workers", or with "one worker", in 1979, compared to those in the inner and outer suburbs. This was the result of the high proportion of lower income, and less educated families who resided in the city at this time. As data in Table IV show, Boston had the highest proportions of both males and females of all racial groups "not in the labor force" in 1979. This suggests that cultural differences, as well as the lack of educational opportunities,\* may be preventing many, particularly minority families from improving their current lifestyle within Boston.

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\* Data presented in Tables IX and X clearly illustrate the relationship between these variables.



TABLE VI

NUMBER OF WORKERS IN FAMILY AND MEAN FAMILY INCOME IN 1979  
 MASSACHUSETTS, BOSTON SMSA, BOSTON CITY,  
 INNER SUBURBS, OUTER SUBURBS  
 Universe: Families

NUMBER OF WORKERS IN FAMILY AND MEAN FAMILY INCOME	GEOGRAPHIC AREA				
	MASSACHUSETTS	BOSTON SMSA	BOSTON	INNER SUBURBS	OUTER SUBURBS
WORKERS TOTAL FAMILIES	179,852 12.4%	79,674 11.8%	22,460 19.0%	42,067 12.0%	15,147 7.4%
INCOME	\$9,700	\$9,995	\$7,092	\$10,616	\$12,572
WORKER TOTAL FAMILIES	437,010 30.2%	203,900 30.3%	37,415 31.8%	105,836 30.3%	60,649 29.5%
INCOME	\$20,398	\$22,888	\$15,998	\$22,812	\$27,272
WORKERS TOTAL FAMILIES	828,123 57.3%	388,829 57.8%	57,957 49.2%	201,131 57.6%	129,741 63.1%
INCOME	\$29,197	\$31,894	\$26,396	\$32,072	\$34,074
L FAMILIES	1,444,985	672,403	117,832	349,034	205,537

: 1980 U.S. Census of the Population and Housing, STF3A.





#### IV. PEOPLE AND OCCUPATIONS

Between 1960 and 1980 there was a national movement of people out of manufacturing and trade industries, and into service related fields.\* The shift of people within these industries in these years generally reflects the expansion of service providing industries throughout the country. Manufacturing and trade industries,\* on the other hand, lessened their importance in maintaining the industrial base of the nation due to the changing needs of the economy.

As a result of the shift in the industrial base over the last 20 years, the occupational characteristics of the working population have had to adapt to a number of demands for new and specialized skills. One outcome of this change has been an increased need for people to fill professional, administrative, technical, and office-related occupations. Demand for people to fill manual and labor occupations has diminished due to the flux within other industries.

The demand for skilled people within the service industries has created a trend toward "professionalization" of the American workplace. This trend in general is seen as resulting from the rapid development of high-tech and other automated industries.

For many people without these marketable skills, particularly those in manual and labor-intensive occupations, this trend has meant that they have either had to change occupations, or leave the area altogether. The occupational characteristics of the working population in Massachusetts, and within the Boston SMSA, particularly in 1980, reflect these patterns.

##### A. Massachusetts

Within Massachusetts in 1980, 72% of the working population were employed in clerical support, professional, managerial, technical, sales, and general service occupations.\*\* The remaining 28% of this population were employed in agricultural, environmental, manual and labor occupations.

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\* For definition of service-related industries and manufacturing industries see page 7.

\*\* See definitions of occupations in Appendix B.



Of the working population in the state in 1980, 45.3% of the people were employed in clerical support (500,969), professional specialty (408,375), and precision production and craft occupations (303,882). Large numbers of people within the state were also employed in general service (293,962), and executive, managerial, and administrative occupations (292,009), as well as operators, machinists, and inspectors (267,610). In 1980, people employed in managerial, general service, and machinists occupations made up 31.9% of the state working population. The remaining 22.8% of the population were employed in other occupations, primarily sales occupations (9.1%).

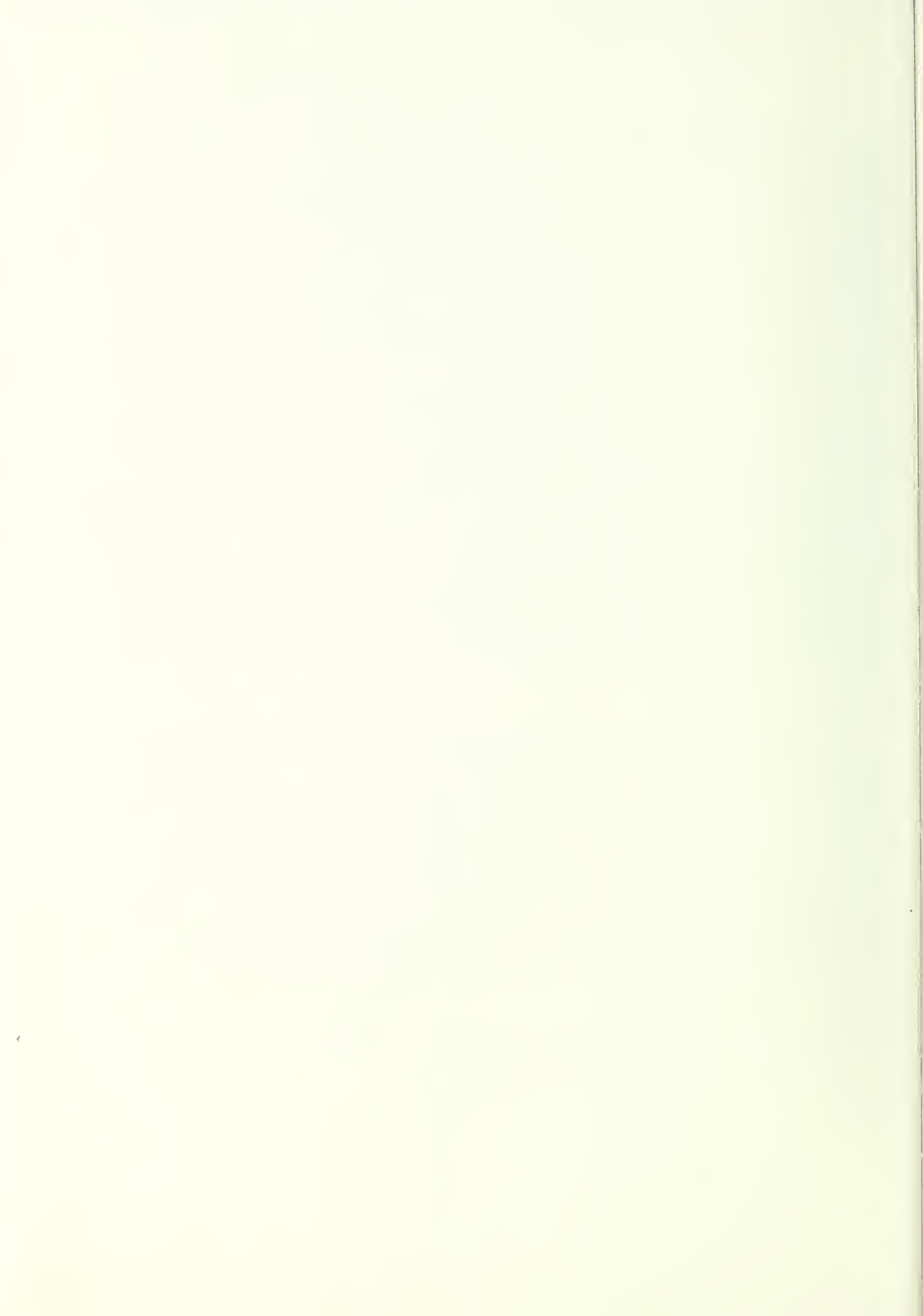
These data suggest that Massachusetts was a state which had few manufacturing and trade industries in 1980, but was the central location of many service industries. Between 1960 and 1980, service industries developed at a rapid rate in Massachusetts, while non-durable manufacturing and construction industries lessened their activities, particularly within the Boston SMSA. This resulted in there being less of a need for people with manual and labor skills within the SMSA, while a need for these people continued in other areas of the state. Analysis of the occupational characteristics (presented in Table VII) of the population in the Boston SMSA, and those living in other areas of the state illustrates this pattern.

#### B. The Boston SMSA

The location of industries throughout the state in many ways determines the occupations available for entry by the working population. As cited earlier,\* between 1960 and 1980 much of the growth in the industries of education, health, business, finance, real estate, and insurance throughout the state occurred within the Boston SMSA. These increases, coupled with the movement of many non-durable manufacturing industries out of the area, prompted the trend toward "professionalization" of the population living in the SMSA. This trend, at the same time, decreased the employment opportunities for manual and labor workers.

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\* See Chapter II entitled People and Industry.



The general pattern which we see when comparing the people who resided in the SMSA to those who lived in other areas of the state is that a majority of the people employed in professional and managerial occupations reside in the SMSA, while more people employed in manual labor occupations reside outside of the area.

Of the employed population in the state in 1980, 57.7% were employed in managerial, professional specialty, technical, sales and support positions, compared to 64.2% of the employed population in the SMSA. The highest proportion of employed persons in both the State and the SMSA were working in administrative support and clerical positions in 1980, with the SMSA having a slightly higher proportion of people employed in these occupations (18.7% State, 20.7% SMSA). Of all the persons in the state who are members of these occupational groups, 10.3% reside in the SMSA, while 8.4% live in other areas of the state.

The SMSA also has higher percentages of people employed as managers, technicians, and sales people, as well as in professional 'specialty' occupations compared to the state (43.5% SMSA, 38.8% State). Professional "specialty" occupations include: engineers, architects, natural, social and computer scientists, health professionals, lawyers, teachers and artists. Of people employed in 'professional specialty' occupations within the state, 8.8% reside in the SMSA, while 6.4% live outside of the SMSA. A similar pattern exists for people employed in managerial, technical and sales positions.

Employed people living outside of the SMSA, on the other hand, tend to be working in more labor-intensive and precision/craft occupations than those in the SMSA.

### C. Area Analysis: Boston, Inner Suburbs, Outer Suburbs

As a result of the diversity and location of industries in the SMSA, it is not surprising to find that the occupational characteristics of the people residing in Boston, the inner suburbs and the outer suburbs vary. One characteristic which is immediately brought to attention is that each area tends to have higher proportions of people employed in one occupational group than in others.



The outer suburbs, for instance, has the highest proportions of people employed in the executive, managerial, sales, craft and agricultural occupations compared to Boston and the inner suburbs. The inner suburbs, on the other hand, has the highest proportion of people working in professional 'specialty' occupations, while people in the city of Boston make up the largest proportions of people employed in technical support, service and manual labor occupations. In terms of actual numbers, however, the inner suburbs has the largest number of people working in all of these occupations, simply because of the size of the total population. Graph II shows these differences.

As the graph shows, within Boston in 1980, the largest number of its residents were employed in clerical and support, service (which includes: restaurant workers, health assistance, building and personal service workers, private household, and protective household workers), and professional specialty occupations. The inner suburbs also had the largest number of its residents employed in these occupations, although the proportion of people employed in professional 'specialty' occupations is much higher in the inner suburbs than in Boston or the outer suburbs. The outer suburbs, on the other hand, had the largest number of its residents employed in clerical and support, professional 'specialty', and executive, managerial and administrative occupations.

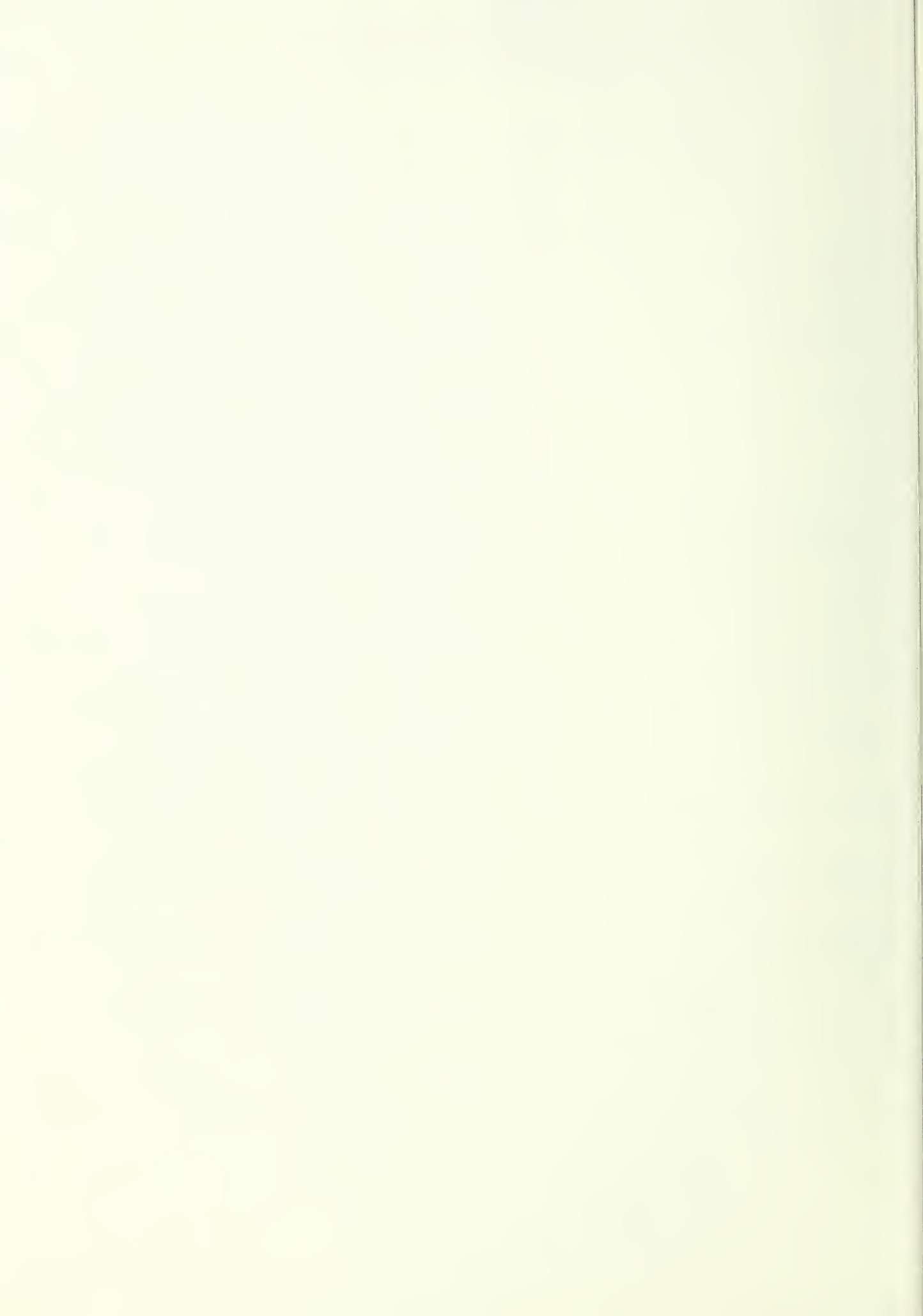




PERSONS EMPLOYED IN OCCUPATIONAL GROUPS IN 1980  
 MASSACHUSETTS, BOSTON SMSA, REMAINDER OF STATE  
 Universe: Employed Persons 16 and Over

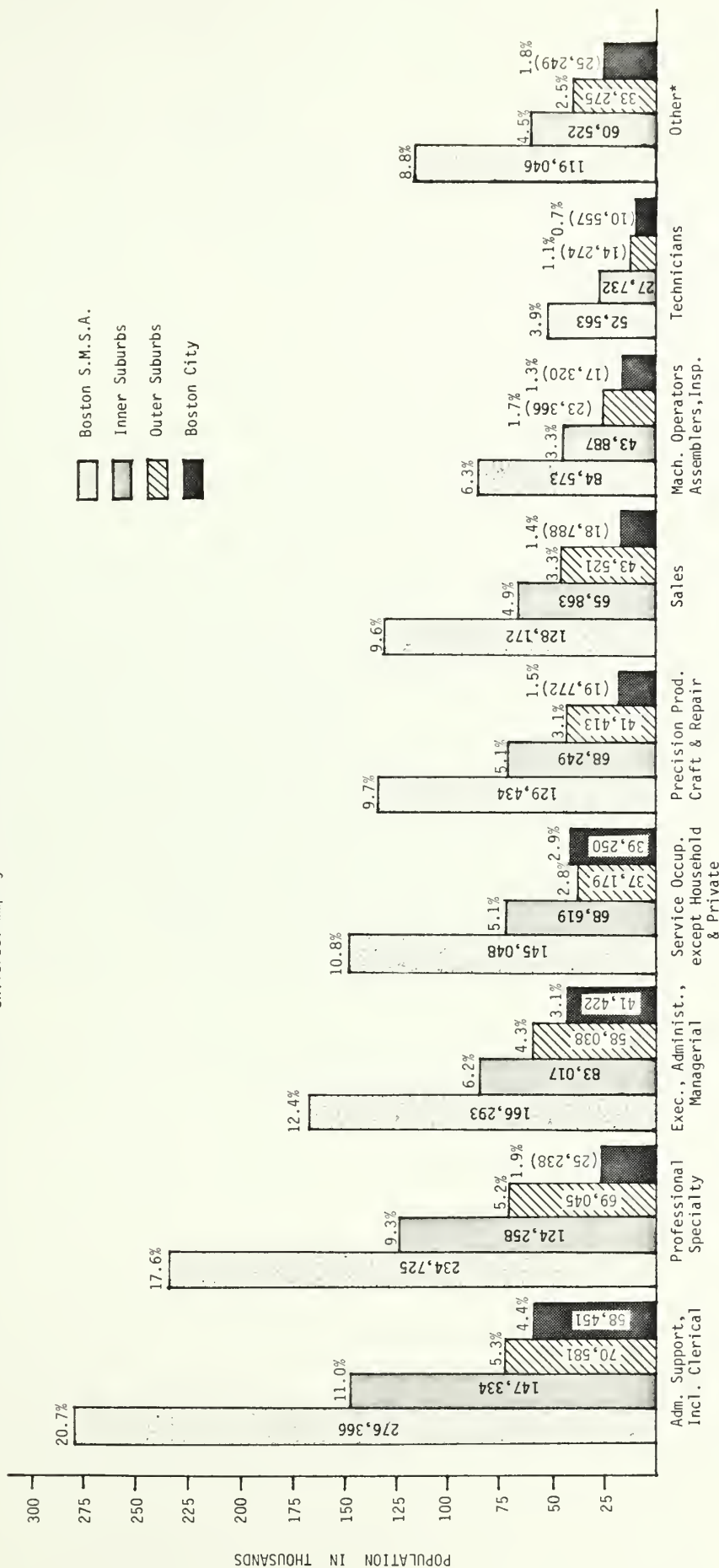
OCCUPATION	MASSACHUSETTS	BOSTON SMSA	REMAINDER OF STATE
EXECUTIVE, MANAGERIAL, ADMINISTRATIVE	292,009 (10.9%)	166,293 (12.4%)	125,716 (9.4%)
PROFESSIONAL SPECIALTY	408,375 (15.3%)	234,725 (17.6%)	173,650 (13.0%)
TECHNICAL	96,708 (3.6%)	52,563 (3.9%)	44,145 (3.3%)
SALES	244,566 (9.1%)	128,172 (9.6%)	116,394 (8.7%)
ADMINISTRATIVE SUPPORT AND CLERICAL	500,969 (18.7%)	276,366 (20.7%)	224,603 (16.8%)
SERVICE:			
PRIVATE HOUSEHOLD	10,021 (0.4%)	5,250 (0.4%)	4,771 (0.4%)
PROTECTIVE SERVICE	53,145 (2.0%)	28,461 (2.1%)	24,684 (1.8%)
OTHER	293,962 (11.0%)	145,048 (10.9%)	148,914 (11.1%)
FARM, FORESTRY, FISHING	23,360 (0.9%)	6,973 (0.5%)	16,387 (1.2%)
PRECISION PRODUCT, CRAFT AND REPAIR	303,882 (11.4%)	129,434 (9.7%)	174,448 (13.0%)
OPERATORS, INSPECTORS, AND ASSEMBLERS	267,610 (10.0%)	84,573 (6.3%)	183,037 (13.7%)
TRANSPORTATION & MOVERS	86,055 (3.2%)	36,788 (2.8%)	49,267 (3.7%)
EQUIPMENT HANDLERS AND LABORERS	93,613 (3.5%)	41,574 (3.1%)	52,039 (3.9%)
TOTAL EMPLOYED	2,674,275 (100%)	1,336,220 (100%)	1,338,055 (100%)

SOURCE: 1980 U.S. Census of Population & Housing, STF3A.



GRAPH II

EMPLOYED PERSONS BY OCCUPATION TYPE IN 1980  
BOSTON S.M.S.A., INNER SUBURBS, OUTER SUBURBS, BOSTON CITY  
Universe: Employed Persons 16 Years and Over



T Y P E O F O C C U P A T I O N

\*Other category includes: handlers, equipment cleaners, laborers/transport movers/protective service/farm, forestry, fishing/private household service occupations.  
Source: 1980 U.S. Census of the Population and Housing



## V. COMMUTING PATTERNS

It is important to note that although the people who resided in the inner and outer suburbs and in Boston are employed in differing industries and occupations, it does not necessarily mean that the industries are located within these areas. Many people from Boston who are employed in nondurable manufacturing, and are manual laborers, may actually be commuting out to the inner suburbs to work, since many light industries are located in this area. The same may hold true of people who lived in the inner and outer suburbs and who may be commuting into Boston. In fact, many of these people may even commute outside of the SMSA to work, particularly those people living in towns located on the outer fringe of the outer suburbs.

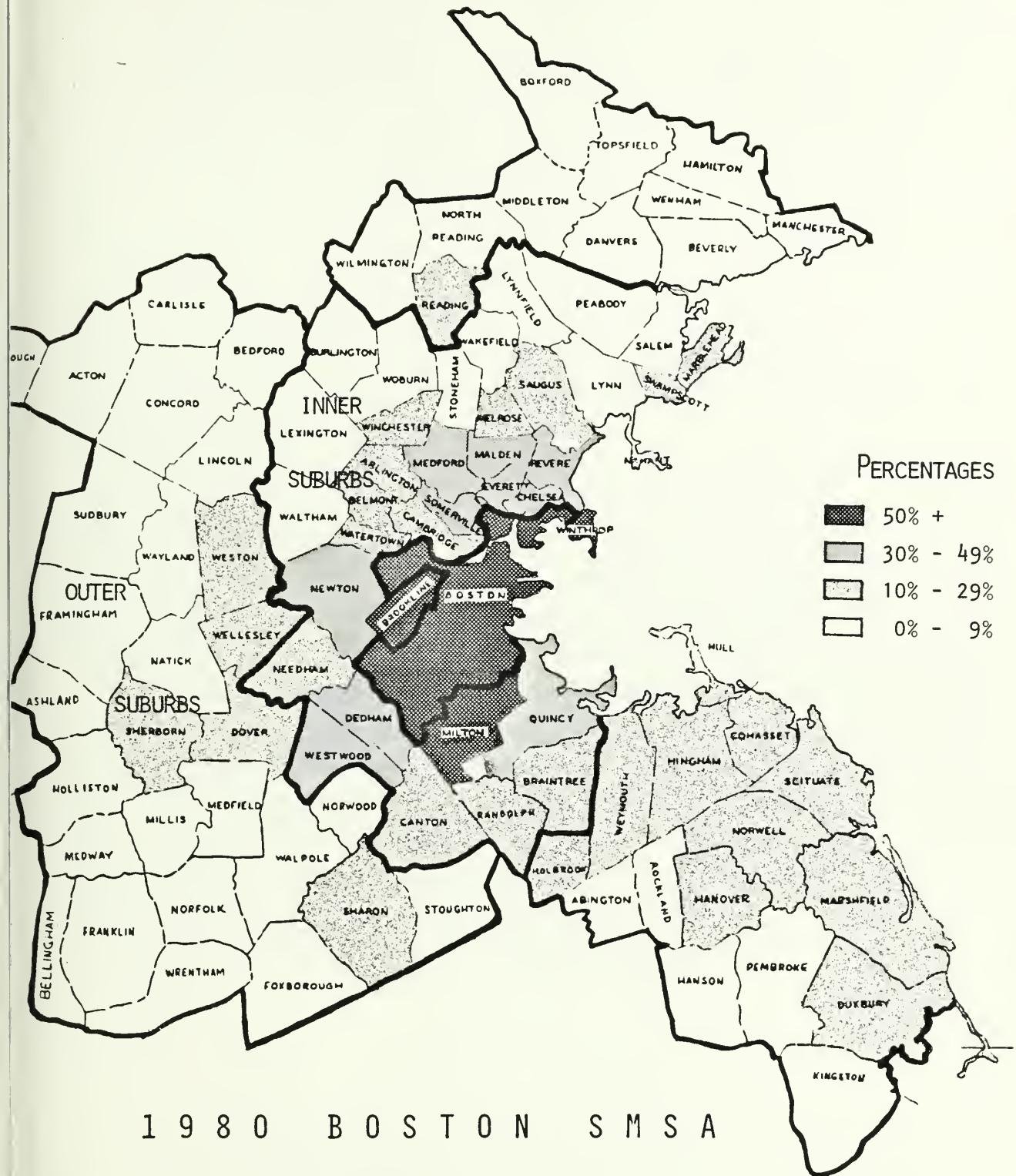
In order to determine where people work, it is necessary to look at the commuting patterns of the people that reside in these areas. Maps I and II show the percentages of people that reside in the towns in the SMSA and commute into Boston, or who work in their town of residence. Unfortunately, the census data are limited in usefulness when attempting to determine where people work if they are not employed by industries in Boston or the town in which they reside. One way to determine this is to analyze what type of industries are located in the area, and then use common sense inferences about commuting patterns. One would not expect, for instance, someone employed in retail trade to commute out to a rural area to work due generally to the lack of retail business in the area. Someone living in the outer suburbs who is employed in business/finance, however, may be more likely to commute into the city primarily because they can usually afford to live out in this area.

People living in the outer suburbs commute less into Boston than those living in the inner suburbs. The highest percentages of people commuting into the city from the outer suburbs are primarily from communities located to the west and south of Boston. People residing in the north and northwest commute much less often. This is most likely due to the concentrations of light industries in these areas.

Looking at Map I it is apparent that many people who reside in the immediate suburbs of Boston, particularly the South Shore area, commute into Boston to work, while fewer people from the North Shore area commute to the city. This is not a surprising fact since many of the high-tech industries are located along one stretch of Route 128 in the North Shore. The city of Lynn, which has retained much of its industrial base, also attracts many people in this area to its industries.







PERCENTAGE OF EMPLOYED PERSONS WHO COMMUTED INTO BOSTON TO WORK IN 1980:  
BOSTON SMSA CITIES AND TOWNS

UNIVERSE: EMPLOYED PERSONS 16 YEARS AND OVER





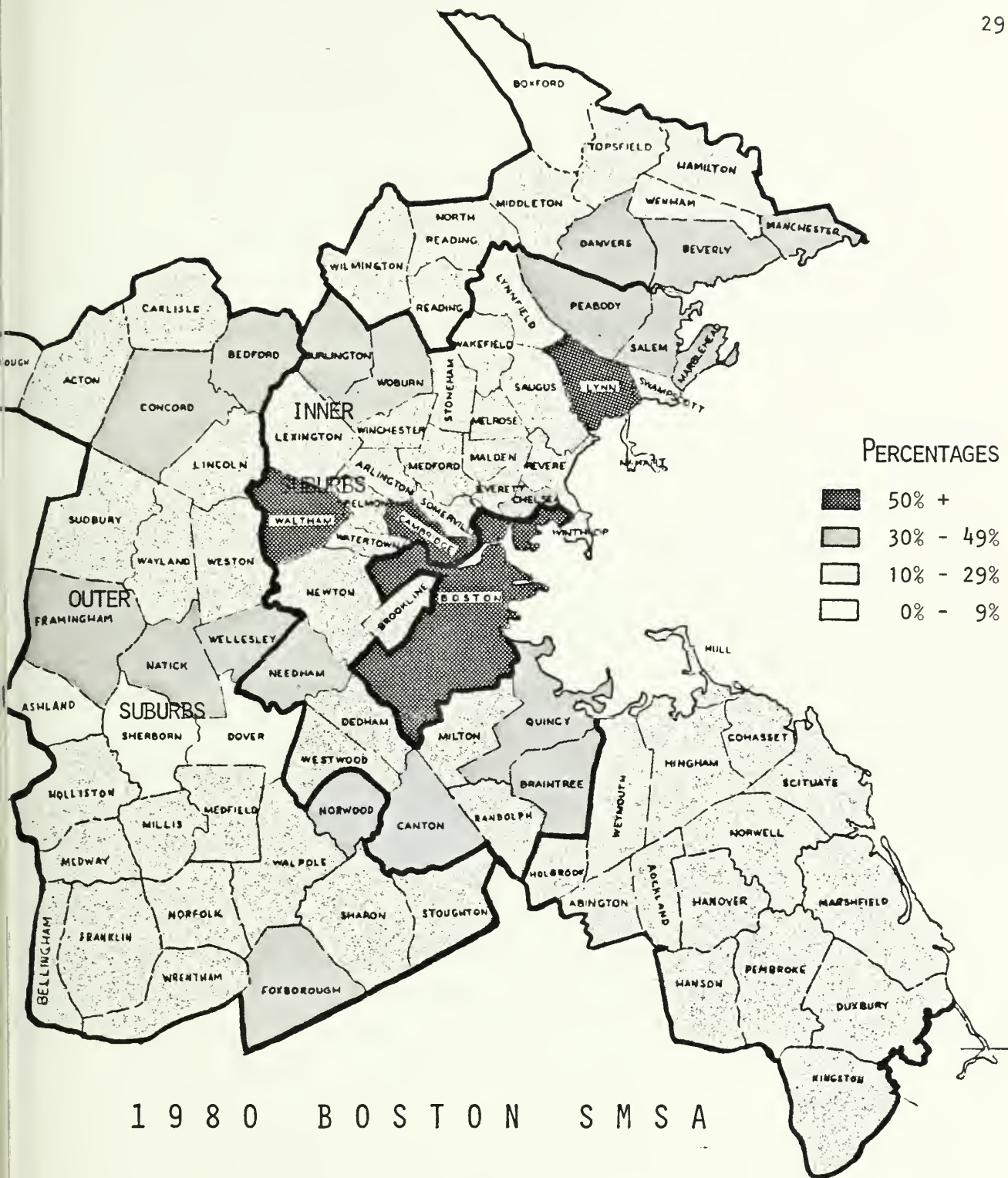
Map II helps us to determine where many of the industries are located within the SMSA other than the city of Boston. As can be seen, many people who live in towns located along the outer ring of the inner suburbs also work in their town of residence, as do people who reside in the cities of Lynn, Waltham, Cambridge and Boston. This suggests that many of the industries in which these people work are actually located in the inner suburbs, rather than in the outer ring of the SMSA.

In analyzing the outer suburbs a similar phenomenon exists. In almost all the towns in this area, other than Dover, Ashland, Boxborough and Sherborn, many people who live in these towns also work there. This is particularly true in the towns of Framingham, Natick, Concord, and Bedford. This is also a result of the presence of many major employers in these areas.

These distributions help to explain who may be commuting to work into Boston from the inner and outer suburbs. Boston, being the central business area of the SMSA, is the location of many of the major employers in the area. Analyzing the occupational structure of the inner and outer suburbs then, it is expected that many of the people employed in professional, executive, administrative, and managerial positions make up a large proportion of the people who are commuting into the city.

Most of the people residing in Boston, as discussed earlier, are also employed by businesses in the city. A comparison of the occupational characteristics of the people in the city to the populations in the inner and outer suburbs suggests that most of the professional, administrative, executive, and managerial people working in the city are actually being imported from the inner and outer suburbs. Boston's resident workers, on the other hand, tend to be filling the support and service worker roles. These data coincide with data on the income earned, education level, and labor force participation of people in these various areas.





PERCENTAGE OF EMPLOYED PERSONS WHO WORKED IN THE SAME TOWN IN WHICH THEY LIVED  
IN 1980: BOSTON SMSA CITIES AND TOWNS

UNIVERSE: EMPLOYED PERSONS 16 YEARS AND OVER

Source: 1980 U.S. Census of the Population and Housing, STF3A.



## VI. EDUCATIONAL ATTAINMENT

The development of high-tech industries, and the diversification of occupations over the last 20 years, have put pressure on Americans to extend their educations to meet the demands of a highly specialized and technical job market. Nationally this trend has resulted in an increase in the median years of school completed by persons of all racial and ethnic groups. Within Massachusetts, and the Boston SMSA in particular, where many of the high-tech industries as well as educational institutions are located, this trend has been more apparent than in the United States as a whole.

### A. Massachusetts

Between 1960 and 1980 the Massachusetts population age 25 years and over experienced an increase of .9 in the median years of school completed, increasing the median from 11.6 years in 1960 to 12.5 years of school completed in 1980 (see Table VIII). This increase in median years of school completed suggests that in 1980 almost three-fourths of the population 25 years and over within the state had completed high school (72%). This percentage of persons who had attained a high school diploma in 1980 is greater than the percentage of persons within this age group who had this level of education within the U.S. population (66.4%).

An increase in the median years of school completed within Massachusetts also implies that a higher percentage of persons 25 years and over had completed four years of college or more in 1980 than in 1960. As data in Table IX show this is the case. In Massachusetts in 1960, 9% of the persons 25 years and over had completed four years of college, compared to 20% in 1980.

A lower percentage of persons 25 years and over had not completed elementary school, or 1-3 years of high school within Massachusetts than the total United States population within this age group (Massachusetts: 27.5%, U.S.: 33.6%). This however does not suggest that persons with less than a high school education in 1980 are not an educational concern. As Table IX shows, within Massachusetts in 1980 there were 496,983 persons age 25 and over who had only attained an elementary school education, and 466,306 who had completed only one to three years of high school. Many of these people were located outside of the Boston SMSA in other areas of Massachusetts.





TABLE VIII

MEDIAN YEARS OF SCHOOL COMPLETED: 1960-1980  
 MASSACHUSETTS, BOSTON SMSA, BOSTON CITY  
 Universe: Persons 25 Years and Over

GEOGRAPHIC AREA	1960	1970	1980*
MASSACHUSETTS	11.6	12.2	12.5
BOSTON SMSA	12.1	12.4	12.8
BOSTON	11.2	12.1	12.4

SOURCE: 1960, 1970, 1980 U.S. Census of the Population and Housing.  
 \*1980 Median figures were calculated by U.C.P.C.





TABLE IX

YEARS OF SCHOOL COMPLETED: 1960 AND 1980  
UNITED STATES, MASSACHUSETTS, AND THE BOSTON SMSA  
Universe: Persons 25 Years and Over

SCHOOL YEARS COMPLETED	UNITED STATES		MASSACHUSETTS		BOSTON SMSA	
	1960	1980	1960	1980	1960	1980
Elementary (0 - 8 years)	39,499,339 (39.7%)	24,257,683 (18.3%)	999,254 (33.2%)	496,983 (14.4%)	411,730 (27.1%)	183,486 (10.9%)
High School (1 - 3 years)	19,115,915 (19.2%)	20,277,514 (15.3%)	604,373 (20.1%)	466,306 (13.5%)	296,660 (19.5%)	201,209 (11.9%)
High School (4 years)	24,455,484 (24.6%)	45,947,035 (34.6%)	868,508 (28.8%)	1,260,868 (36.4%)	481,529 (31.7%)	613,035 (36.3%)
College (1 - 3 years)	8,742,070 ( 8.8%)	20,794,975 (15.6%)	282,080 ( 9.4%)	545,469 (15.7%)	159,578 (10.5%)	274,318 (16.2%)
College (4 years +)	7,625,273 ( 7.7%)	21,588,480 (16.2%)	256,402 ( 8.5%)	693,630 (20.0%)	170,039 (11.2%)	417,299 (24.7%)
TOTAL PERSONS 25+	99,438,081	132,865,687	3,010,617	3,463,256	1,519,536	1,689,347

SOURCE: 1960, 1980 U.S. Census of the Population and Housing.



## B. The Boston SMSA

Within the Boston SMSA between 1960 and 1980, there was also an increase in the median years of school completed by the population age 25 years and over (12.1 years in 1960, to 12.8 years in 1980). This increase, although not as great as that of the state population, indicates that the average person in the SMSA within this age range, had attained a higher level of education than the average person who resided in the state as a whole.

In 1980, over 77% of the population age 25 years and over in the SMSA had completed four years of high school, and 16% had completed one to three years of college. These data are consistent with the percentages of the state population who had attained these levels of education in 1980.

Of greater difference is the percentage of persons who had completed four years of college or more within the SMSA, as compared with the state as a whole. In 1980, 24.7% of the SMSA population age 25 years and over had completed four years of college, compared to 20.1% of the state population in this age group. These data indicate that over half (60%) of all college graduates who resided within the state in 1980 lived within the Boston SMSA.

Of the state population age 25 years and over who had only an elementary school education, only 36.9% lived within the SMSA in 1980 (183,486). A slightly higher percentage of the state population who had only one to three years of high school education, on the other hand, lived within the SMSA at this time (43% or 201,209 people).

These data indicate that the population age 25 years and over residing in the Boston SMSA attained a much higher level of education than these populations residing in the state as well as the United States as a whole. More important, however, is the distribution of persons with varying educational levels throughout the SMSA.



### C. Area Analysis: Boston, the Inner Suburbs, and the Outer Suburbs

As was discussed in the preceeding section, a greater percentage of persons age 25 years and over living in the SMSA in 1980 had completed high school or college than in the state as a whole. Within the SMSA, however, the educational attainment of individuals varied greatly between the three geographic areas within the SMSA -- Boston, the inner suburbs and the outer suburbs. As Table X indicates, the level of education attained by the populations 25 years and over within these areas increases proportionately as one moves away from the city of Boston.

The City of Boston in 1980, in comparison to the suburbs, had the highest proportion of persons 25 years of age and over who had not completed elementary school or high school. In addition, fewer persons in Boston in 1980 had obtained a high school diploma or a college degree in comparison with the inner and outer suburbs.

The population age 25 years and over in the outer suburbs, on the other hand, attained the highest level of education proportionately than the populations in Boston or the inner suburbs. The level of education among the population 25 years and over in the inner suburbs in 1980 shows a higher proportion had elementary, and some high school education, compared to the population in Boston, but a lower proportion had completed high school or college than the outer suburb population.

#### 1. Race and Ethnic Variation in Educational Attainment

Analyzing Table X, it is apparent that much of the variation in educational level attained by populations in these geographic areas results from the racial and ethnic distribution of minorities within the SMSA. As was discussed earlier, most of the minority population within the SMSA live in the City of Boston. It is well known that minority groups, in general, are not provided with similar educational or economic opportunities as those available to whites, particularly within central cities. Minorities in Boston attained lower levels of education than whites, as well as minorities in the inner and outer suburbs in 1980.





YEARS OF SCHOOL COMPLETED BY RACE IN 1980  
 BOSTON, INNER SUBURBS, OUTER SUBURBS  
 UNIVERSE: Persons 25 Years and Over

RACE BY YEARS OF SCHOOL COMPLETED	BOSTON	INNER SUBURBS	OUTER SUBURBS
<b>TOTAL ALL RACES:</b>			
TOTAL 25 YEARS +	330,650 (100%)	883,119 (100%)	475,578 (100%)
ELEMENTARY (1 - 8 years)	54,932 (16.6%)	97,359 (11.0%)	31,195 (6.6%)
HIGH SCHOOL (1 - 3 years)	49,407 (14.9%)	108,262 (12.3%)	43,540 (9.2%)
HIGH SCHOOL (4 years)	115,787 (35.0%)	324,766 (36.8%)	172,482 (36.3%)
COLLEGE (1 - 3 years)	43,451 (13.1%)	137,648 (15.6%)	93,219 (19.6%)
COLLEGE (4 years +)	67,073 (20.3%)	215,084 (24.4%)	135,142 (28.4%)
<b>WHITE:</b>			
TOTAL 25 YEARS +	248,624 (100%)	852,425 (100%)	464,917 (100%)
ELEMENTARY (1 - 8 years)	36,498 (14.7%)	93,187 (10.9%)	30,080 (6.5%)
HIGH SCHOOL (1 - 3 years)	33,718 (13.6%)	104,955 (12.3%)	42,522 (9.1%)
HIGH SCHOOL (4 years)	86,836 (34.9%)	316,839 (37.2%)	169,106 (36.3%)
COLLEGE (1 - 3 years)	32,997 (13.3%)	132,796 (15.6%)	91,284 (19.6%)
COLLEGE (4 years +)	58,575 (23.5%)	204,648 (24.0%)	131,925 (28.4%)
<b>BLACK:</b>			
TOTAL 25 YEARS +	63,066 (100%)	13,516 (100%)	3,874 (100%)
ELEMENTARY (1 - 8 years)	11,108 (17.6%)	1,766 (13.0%)	366 (9.4%)
HIGH SCHOOL (1 - 3 years)	13,165 (20.9%)	1,780 (13.2%)	378 (9.8%)
HIGH SCHOOL (4 years)	24,501 (38.8%)	4,715 (34.9%)	1,162 (30.0%)
COLLEGE (1 - 3 years)	8,799 (13.9%)	2,310 (17.1%)	871 (22.4%)
COLLEGE (4 years +)	5,493 (8.7%)	2,945 (21.8%)	1,097 (28.3%)
<b>AMERICAN INDIAN, ALEUT:</b>			
TOTAL 25 YEARS +	837 (100%)	688 (100%)	93 (100%)
ELEMENTARY (1 - 8 years)	180 (21.5%)	99 (14.4%)	16 (17.2%)
HIGH SCHOOL (1 - 3 years)	138 (16.5%)	133 (19.3%)	25 (26.9%)
HIGH SCHOOL (4 years)	268 (32.0%)	180 (26.2%)	34 (36.6%)
COLLEGE (1 - 3 years)	132 (15.8%)	126 (18.3%)	10 (10.7%)
COLLEGE (4 years +)	119 (14.2%)	150 (21.8%)	8 (8.6%)
<b>ASIAN &amp; PACIFIC ISLANDER:</b>			
TOTAL 25 YEARS +	9,352 (100%)	10,287 (100%)	2,285 (100%)
ELEMENTARY (1 - 8 years)	3,417 (36.5%)	1,122 (10.9%)	216 (9.4%)
HIGH SCHOOL (1 - 3 years)	809 (8.6%)	613 (6.0%)	75 (3.4%)
HIGH SCHOOL (4 years)	2,150 (23.0%)	1,491 (14.5%)	414 (18.1%)
COLLEGE (1 - 3 years)	887 (9.5%)	1,260 (12.2%)	350 (15.3%)
COLLEGE (4 years +)	2,089 (22.4%)	5,801 (56.4%)	1,230 (53.8%)





As Table X reflects, the proportion of whites age 25 years and over with four years of college or more, increases gradually as one moves from Boston to the inner suburbs and to the outer suburbs (Boston: 23.5%, Inner Suburbs: 24.0%, Outer Suburbs: 28.4%). Blacks within the city, however, were far less likely to have completed four or more years of college in 1980 than their counterparts in the inner and outer suburbs (Boston: 8.7%, Inner Suburbs: 21.8%, Outer Suburbs: 28.3%). Asians and Pacific Islanders in the city had about the same proportion of individuals with four years of college or more as did whites in 1980. In the inner and outer suburbs, however, Asians and Pacific Islanders in this age range were about twice as likely to have had four years or more of college than was the white population in these areas.

Although a large percentage of Asians and Pacific Islanders residing in Boston in 1980 had completed college, 36.5% of this population 25 years and over also had less than an elementary school education. This may be explained in part by the heavy concentrations of earlier immigrants from China and more recent refugees from Indochina with little formal education.

A high proportion of Blacks within Boston also had less than an elementary school education in 1980 (17.6%). The extremely low proportion of the Black population age 25 years and over with four years or more of college within Boston (8.7% as opposed to 23.5% of whites), raises many questions about the upward mobility of the black population within Boston.

a. The Hispanic Population\*

Within the SMSA, the largest segment of the Hispanic population resides in Boston. Given that this ethnic group is subject to similar educational and economic barriers as other minority groups, it is not surprising to find that the level of education attained by this population was low in 1980. The recent migration of many Hispanic people to this area from Haiti and Cuba further affects this distribution.

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\* The Hispanic population within the Boston SMSA, at least in census terms, is viewed as being an ethnic group, rather than a racial category. For this reason, the educational levels attained by the Hispanic community within the SMSA cannot be compared to the levels attained by any racial groups (whites, Blacks, Asians and Pacific Islanders, American Indians, and Aleuts).



As graph III shows, 34.1% of the Hispanic population in Boston age 25 years and over in 1980 had less than an elementary school education. This was true of less than 20% of this portion of the Hispanic population in the outer suburbs. By the same token, Hispanic residents of Boston age 25 years and over were only about half as likely to have completed four years of college or more than their counterparts in the inner and outer suburbs (Boston: 11.7%, inner suburbs: 20.7%, outer suburbs: 24.5%). UCPC's report on Hispanics in The Boston SMSA - A Demographic Profile investigates some of the factors which help to explain these differences.



GRAPH III

YEARS OF SCHOOL COMPLETED BY PERSONS OF SPANISH ORIGIN IN 1980  
BOSTON S.M.S.A., BOSTON, INNER SUBURBS, OUTER SUBURBS

Universe: Persons 25 Years and Over



Source: 1980 U.S. Census of the Population and Housing, STF3A





## VII. FAMILY INCOME IN 1979

Over the past 20 years there have been steady increases in the economic status of families throughout the United States. Some of the factors which have particularly influenced this trend have been the shifting of the industrial base from manufacturing and trades to service-related industries, the changing occupational and educational characteristics of the population, as well as soaring inflation. These factors, working together, helped to increase the median family income in the United States by 252% between 1959 and 1979, or from \$5,660 in 1959, to \$19,928 in 1979. This is a significant increase which suggests that the average family in 1979 had \$14,268 more dollars to spend in 1979 than it did in 1959. This increase, however, does not imply that families had more buying power in 1979 than in 1959 since, as is well known, inflation managed to parallel the cost of living between these years (particularly between 1969 and 1979).

### A. Massachusetts

Between 1959 and 1979 Massachusetts families experienced substantial increases in the median family income earned, paralleling the increases which occurred in median family income earned by families throughout the country. Within this time period the median family income earned by families throughout the state increased by 237%, or from \$6,272 in 1959, to \$21,165 in 1979. These data suggest that the increase in median family income between 1959 and 1979 was higher for families in the country as a whole, than in Massachusetts. Although the percentage increase was higher, however, families within the state actually earned \$1,237 more dollars a year in 1979 than families nationally. This suggests that families within the Commonwealth generally had a higher standard of living between 1959 and 1979, than families throughout the United States.

### B. The Boston SMSA

As a result of the changing industrial base, and occupational and educational characteristics of the SMSA population between 1959 and 1979, it is correct to assume that the families within the SMSA saw the greater increases in median family income earned during this time period compared to families throughout the state. As is seen on Table XI, the median family income of families in the SMSA in 1979 was 242% higher than it had been in 1959. This indicates an increase of \$6,160 in the median family income earned (increasing the median from \$6,687 in 1959 to \$22,847 in 1979). These data further reflect that families residing in the SMSA earned substantially higher salaries than families nationally, as well as within Massachusetts.





TABLE XI

MEDIAN FAMILY INCOME IN 1959, 1969, and 1979  
 UNITED STATES, MASSACHUSETTS, BOSTON SMSA, BOSTON CITY  
 Universe: Families

GEOGRAPHIC AREA	1959	1969	% CHANGE 1959-1969	1979	% CHANGE 1969-1979
UNITED STATES	\$5,660	\$9,586	+69.4%	\$19,928	+107.9%
MASSACHUSETTS	\$6,272	\$10,835	+72.8%	\$21,165	+95.3%
BOSTON SMSA	\$6,687	\$11,449	+71.2%	\$22,847	+99.6%
BOSTON CITY	\$5,747	\$9,133	+58.9%	\$16,062	+75.9%

SOURCE: 1960, 1970, 1980 U.S. Census of the Population and Housing



### C. Area Analysis: Boston, Inner Suburbs, Outer Suburbs

Although the increase in median family income earned by families within the SMSA was large between 1959 and 1979, it does not necessarily reflect the actual increases which occurred in median family income earned by families outside of the City of Boston. As data on Table XI show, the increase in median family income earned by families within Boston was much lower than the increases which occurred within the SMSA as a whole between 1959 and 1979 (179% increase 1959-1979). These data indicate that the increase in median family income earned by families in the inner and outer suburbs was higher than that reflected in the increase in the median family income experienced within the SMSA between these years.

As data on Table XII show, this is the case. In 1979, the median family income earned by families living in the inner suburbs and the outer suburbs varied considerably from that earned by families in Boston (Boston, \$16,062; Inner Suburbs \$22,989; Outer Suburbs, \$26,481). These data imply that the average family in the outer suburbs in 1979 earned \$10,419 more dollars than a family residing in Boston. Similarly, a family in the inner suburbs would have been earned \$6,927 dollars more in 1979 than families living in Boston.

Much of this variation in median income earned by the families in these geographic areas results from differences in occupational characteristics and educational levels attained by the populations residing in these areas. Perhaps another, more important factor affecting the median family income earned in 1979 by families in these areas is the racial distribution of minority populations within Boston, as compared to the inner and outer suburbs. The next discussion reflects some of the possible effects race has on the median family income earned in each of these areas.



### 1. Race and Ethnic Variation and Median Family Income in 1979

As was previously discussed, the City of Boston in 1980 had the highest proportions of its working population employed in clerical, general service, and professional 'specialty' occupations. The working populations in the inner and outer suburbs, on the other hand, were more likely to be employed in more professional occupations (see page 19). By the same token, the City of Boston also had the lowest percentage of its population age 25 and over who had completed college, compared to those populations in the inner and outer suburbs. These data alone would lead one to expect that the median family income of families within Boston would be lower than that of persons in the inner or outer suburbs. One compounding variable which further affects the median family income reported for an area is the racial distribution of families within the area.

As data presented on Table XII clearly indicate, there was variation in the median family income earned by white families within the SMSA compared to that earned by minority families in the area in 1979. This pattern is most apparent within Boston, which had the highest proportions of minority families, compared to the inner and outer suburbs populations. These data also show that the median family income earned by families of all racial categories increased proportionately as one moves away from the city of Boston to the outer suburbs. These data are consistent with those found when analyzing the occupational characteristics as well as educational attainment of the populations residing within these three areas.

A general pattern between race and median family income earned in 1979 becomes evident when analyzing the data on Table XII. As can be seen, within Boston and the inner suburbs, white families had the highest median family income earned in 1979. Within the outer suburbs, however, Asian and Pacific Islanders earned the highest median family income in 1979. These data would suggest that Asian and Pacific Islander families in the outer suburbs in 1979 were economically well off, compared to those families of this race residing in Boston and the inner suburbs.



TABLE XII

RACE BY MEDIAN FAMILY INCOME IN 1979  
 MASSACHUSETTS, BOSTON SMSA, BOSTON CITY,  
 INNER SUBURBS, OUTER SUBURBS  
 Universe: Families

GEOGRAPHIC AREA	Median Family Income				
	AREA MEDIAN All Races	WHITE	BLACK	AMERICAN INDIAN AND ALEUTIAN	ASIAN AND PACIFIC ISLANDER
MASSACHUSETTS (% Diff. from Area Median)	\$21,165	\$21,697 +(2.5%)	\$13,388 -(36.7%)	\$13,777 -(34.9%)	\$20,359 -(3.8%)
BOSTON SMSA (% Diff. from Area Median)	\$22,847	\$23,671 +(3.6%)	\$12,936 -(43.4%)	\$11,634 -(49.1%)	\$19,875 -(13.0%)
BOSTON CITY (% Diff. from Area Median)	\$16,062	\$18,612 +(15.9%)	\$11,910 -(25.8%)	\$9,117 -(43.2%)	\$14,416 -(10.2%)
INNER SUBURBS (% Diff. from Area Median)	\$22,989	\$23,269 +(1.2%)	\$17,228 -(25.1%)	\$12,936 -(43.7%)	\$23,208 +(1.0%)
OUTER SUBURBS (% Diff. from Area Median)	\$26,481	\$26,644 +(0.6%)	\$24,088 -(9.0%)	\$17,499 -(33.9%)	\$30,449 +(15.2%)

SOURCE: 1980 U.S. Census of the Population and Housing, STF3A.





Median family income in 1979 of other racial groups, however, is fairly consistent throughout Boston, the inner suburbs and the outer suburbs. As can be seen in Table XI, of all racial groups American Indians and Aleut families had the lowest family income in 1979 in each of the three geographic areas while black families had the second lowest median family income reported in 1979 in these areas. Asian and Pacific Islanders, although having a median family income in 1979 which was lower than the median income for Boston as a whole, had approximately the same median family income as whites in the inner suburbs, and a much higher median family income than any other racial group in the outer suburbs. Although these patterns do exist, it remains important to remember that families of all racial groups within Boston had significantly lower median family incomes than these families in the inner and outer suburbs.

a. Hispanic Families and Median Family Income\*

Between 1975 and 1980 there was an influx of Hispanic families from Puerto Rico, Haiti and Cuba to the Boston Metropolitan Area. As was discussed earlier, many of these families, who had few members with high school or college educations, settled in Boston. These factors, as well as cultural differences relating to the participation of Hispanic women in the labor force, have lead Hispanics to have the lowest median family income reported in 1979 when compared to the total median family income in Boston, the inner suburbs and the outer suburbs. As can be seen on Table XIII, the median family income of Hispanic families in Boston in 1979 was 43.8% below the median family income reported by all families in Boston at this time. Similarly, Hispanic families in the inner suburbs in 1979 were earning 40% and 61% below the median family incomes reported by families residing in the inner and outer suburbs respectively in 1979. These data suggest that Hispanic families throughout the SMSA, but particularly in Boston, should certainly be a target population for human service agencies, as these data suggest that this is an "at risk" population.

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\* Hispanics in the 1980 Census were treated as an ethnic group rather than a racial group. For this reason, data on Hispanics cannot be directly compared with data on racial groups (Whites, Blacks, American Indians, Asian, Aleut, and Pacific Islanders.)



TABLE XIII

MEDIAN FAMILY INCOME IN 1979 OF FAMILIES OF SPANISH ORIGIN  
MASSACHUSETTS, BOSTON SMSA, BOSTON CITY,  
INNER SUBURBS, OUTER SUBURBS  
Universe: Families of Spanish Origin

ETHNIC GROUP	MASSACHUSETTS	BOSTON SMSA	BOSTON CITY	INNER SUBURBS	OUTER SUBURBS
PERSONS OF SPANISH ORIGIN	\$10,600	\$11,400	\$9,027	\$13,801	\$10,317

SOURCE: 1980 U.S. Census of the Population and Housing, STF3A.



## VIII. Summary and Implications for Human Services

Analysis of the changing socio-economic characteristics of a population is necessary to design, implement, or improve human service delivery systems.

In this report differences in the types of industries, occupations, education level, and income levels of the populations in the State and the Boston SMSA are apparent. There are also differences in characteristics between the populations within the SMSA, in Boston city, the inner suburbs and the outer suburbs.

Summarized below are the major changes (1960-1980) that have occurred in Massachusetts, the Boston SMSA, and the city of Boston, between 1960 and 1980, and the current socio-economic characteristics (1980) of these populations. Also summarized are current characteristics of the populations in the inner and outer suburbs of Boston. The implications of these characteristics to planning and program development, depends primarily on the types of human service agencies in the areas and their need for service revision.

### A. Massachusetts

Over the last twenty years (1960-1980) the State has experienced the following changes in the socio-economic characteristics of its population:

- o A 39.3% decrease in the number of persons employed in non-durable manufacturing (29.3%), and personal, recreation, and entertainment industries (10.0%).
- o Major increases in the number of persons employed in health (+272%: 1960-1980), education (+145%: 1960-1980), business and repair (+132%: 1960-1980), and durable goods manufacturing (+23.9%: 1960-1980). Increases in the number of people employed in all other service-related industries also occurred.
- o An increase of 196,207 (+15.4%) males employed in the civilian labor force, coupled with increases in the number of males classified as "unemployed" (26,098, +28.7%) or "not in the labor force" (112,569, +45.3%).
- o A increase of 477,756 (+66%) women employed in the civilian labor force, an increase of 95,781 (+7.9%) women "not in the labor force", and an increase of 28,439 (+95.0%) women who were "unemployed".
- o An approximate one-year increase in the median number of years of school completed by persons age 25 years and over.



1. In 1980:

The majority of the persons working in the State were employed in durable manufacturing, retail trade, education, health, and non-durable manufacturing industries.

- o 71.5% of the males age 16 years and over were employed in the civilian labor force, while 4.0% were "unemployed", and 24.5% were not in the civilian labor force.
- o 50.4% of the females age 16 years and over were employed in the civilian labor force, while 2.5% were "unemployed" and 47.1% were "not in the labor force".
- o 57.3% of the families in the State were supported by two or more workers while 30.2% had only one worker, and 12.5% had "no workers".
- o The majority of employed persons in the State worked in administrative support and clerical, professional specialty, precision production, craft and repair, and "other service" occupations. (See Appendix II for definition)
- o Over 72% of the persons age 25 years and over had a high school education. Of this population, Whites had the highest proportion of persons completing high school (72.8%), followed by Asian and Pacific Islanders (72.4%). Lower proportions of persons of Black and American Indian/Aleut races had completed high school than Whites and Asian/Pacific Islanders (Black-64.5%: American Indians/Aleuts-64.0%). Persons of Spanish Origin (being of any race), had the lowest proportion of persons completing high school (44.6%).
- o Asian and Pacific Islanders had the highest proportion of persons who had completed college of any racial group (40.7%), followed by Whites (20.2%), American Indians/Aleuts (12.2%), and Blacks (11.9%).

B. The Boston SMSA

Between 1960-1980 the Boston SMSA population experienced the following changes in its socio-economic characteristics.

- o A 52.6% decrease in the number of persons employed in non-durable manufacturing (-37.6%), personal, entertainment, and recreation (-13.2%), and agriculture, farming, fishing, and mining (-1.8%).
- o Major increases in the number of persons employed in health (+279%: 1960-1980), business and repair (+136.3%: 1960-1980), education (+130.4%: 1960-1980), and retail trade (+37.2%: 1960-1980) The number of persons employed in all other service industries also increased between 1960-1980.





- o An increase of 75,848 (+11.6%) males age 16 years and over employed in the civilian labor force, coupled with increases in the number of males classified as "unemployed" (9,849, +35.7%), or "not in the labor force" (50,021, +25.6%).
- o An increase of 249,980 (+67.4%) females age 16 years and over employed in the civilian labor force, an increase of 13,333 (+108%) females who were "unemployed", and a decrease of 81,791 (-131.2%) females "not in the labor force".
- o An approximate seven-month increase in the number of years of school completed by persons age 25 years and over (12.1 years - 1960 to 12.8 years - 1980).
- o A 71.2% increase in the median family income between 1960-1970, and a further increase in the median income of 99.6% between 1970 and 1980.

1. In 1980:

The majority of the employed population in the Boston SMSA worked in retail trade, durable manufacturing, health, and education industries:

- o 72.0% of the males age 16 years and over were employed in the civilian labor force, 3.7% were unemployed, and 24.3% were "not in the labor force".
- o 51.7% of the females age 16 years and over were employed in the civilian labor force, 2.2% were "unemployed", and 46.1% were classified as "not in the labor force".
- o 57.8% of the families in the SMSA had "two or more workers" supporting the family, while 30.3% had only one worker and 11.8% "no workers".
- o The majority of persons in the SMSA were employed in administrative support and clerical, professional specialty, executive, managerial, and administrative, and "other service" occupations (see Appendix II for definition of "other service").
- o More than 77% of the persons age 25 years and over had a high school education. Whites and Asian and Pacific Islanders had the highest proportions of persons with a high school education (78.2% and 71.5% respectively), while Blacks and American Indians/Aleuts had lower proportions of persons who had completed high school (Blacks: 64.5%, American Indians/Aleuts: 63.5%). Persons of Spanish origin (being of any racial group), had the lowest proportion of persons who had completed high school (52.8%), compared to all other racial groups.



- o The median family income was \$22,847. Of the population in the SMSA, Whites had the highest median family income (\$23,671), followed by Asian and Pacific Islanders (\$19,875), Blacks (\$12,936), and American Indians/Aleuts (\$11,634). Persons of Spanish Origin had the lowest median family income (\$11,400) although they are of any racial group.

### C. City of Boston:

Over the last twenty years (1960-1980), the population in the city of Boston experienced the following changes in its socio-economic characteristics:

- o A decrease of 39,636 (-23.0%) males age 16 years and over employed in the civilian labor force, a decrease of 372 (3.5%) males "unemployed" since 1960 (although there was an increase of 2,862 males (+38.9%) since 1970), and an increase of 6,135 (+10.1%) males "not in the labor force".
- o An increase of 7,437 (+6.4%) females age 16 and over employed in the civilian labor force, an increase of 1,871 (+40.0%) the number of females "unemployed" +1,871, +40.0%, and a decrease of 45,177 (-27.9%) females "not in the labor force".
- o An approximate increase of 1.2 years in the number of years of school completed by persons age 25 years and over.
- o An increase in the median family income of 58.9% between 1960-1970, and an increase of 75.9% between 1970 and 1980.

#### 1. In 1980:

- o The majority of employed persons in Boston worked in retail trade, health, education, and finance/ real estate/ and insurance industries.
- o 63.2% of the males age 16 years and over were employed in the civilian labor force while 4.9% were "unemployed", and 31.9% were "not in the labor force". American Indians/Aleuts had the highest proportion of males employed (64.9%), followed by Asian and Pacific Islanders (65.7%), Whites (64.5%), and Blacks (58.9%). Persons of Spanish Origin (any race) had the lowest proportion of males employed (58.6%).
- o 50.0% of the females age 16 years and over were employed in the civilian labor force, 2.7% were "unemployed", and 47.3% were "not in the labor force". Asian and Pacific Islanders had the highest proportion of females employed (54.6%), followed by Whites (50.7%), Blacks (49.2%), and American Indians/Aleuts (42.8%). Persons of Spanish Origin (any race) had the lowest proportion of females employed (39.9%).



- o 49.2% of the families in Boston had "two or more" workers supporting the family, while 31.8% had only one worker, and 19.0% had "no workers".
- o The majority of the employed persons in Boston worked in Administrative support and clerical, executive, administrative, and managerial, and "other service" occupations (see Appendix II for definition).
- o 68.4% of the population age 25 years and over had a high school education. By race, Whites had the highest proportion of persons who had completed high school (71.7%), followed by American Indians/Aleuts (62%), Blacks (61.5%), and Asian and Pacific Islanders (54.8%). Persons of Spanish Origin (any race) had the lowest proportion of persons who had completed high school (47.8%).
- o White persons age 25 years and over had the highest proportion of their population who had completed four years of college or more (23.5%), followed by Asian and Pacific Islanders (22.3%), American Indians/Aleuts (14.2%), and Blacks (8.7%). Persons of Spanish Origin had a higher proportion of their population who had completed college than Blacks (11.7%).
- o The median family income was \$16,062. White families had the highest median income (\$18,612), followed by Asian and Pacific Islanders (\$14,416), Blacks (\$11,910), and American Indians/Aleuts (\$9,117). Persons of Spanish Origin (any race) had the lowest median family income (\$9,027).

#### D. Inner Suburbs

In 1980 the population of the inner suburbs had the following socio-economic characteristics:

- o The majority of the employed persons in the inner suburbs were employed in retail trade, non-durable manufacturing, education and health industries.
- o 72.5% of the males age 16 years and over were employed in the civilian labor force, 3.5% were "unemployed", and 24.0% were "not in the labor force". American Indians/Aleuts had the highest proportion of males over age 16 years employed (74.7%), followed by Whites (72.6%), Blacks (68.6%), and Asian and Pacific Islanders (67.8%). Persons of Spanish Origin had the lowest proportion of males employed (65.7%).
- o 51.7% of the females age 16 years and over were employed in the civilian labor force, 2.0% were "unemployed", and 46.3% were "not in the labor force". Blacks had the highest proportions of females over age 16 employed in the civilian labor force (59.4%), followed by Asian and Pacific Islanders (57.5%), Whites (51.5%), and American Indians/Aleuts (50.4%). Persons of Spanish Origin had the lowest proportion of females in the labor force (48.3%).





- o 57.6% of the families in the inner suburbs were supported by "two or more" workers, 30.3% had only one worker, and 12.0% had "no workers".
- o The majority of employed persons in the inner suburbs worked in administrative support and clerical, professional specialty, executive, managerial, and administrative positions, and "other services" (see Appendix II for definition).
- o Over 76.7% of the persons age 25 years and over had completed high school. By race, Asian and Pacific Islanders had the highest proportion of persons who had completed high school (83.1%), as well as the highest proportion who had completed four years of college or more (56.4%). Whites followed with 76.8% completing high school, and 24% completing college. Blacks and American Indians/Aleuts had lower proportions of persons who had completed both high school and college (Blacks: 73.8% high school, 21.8% college; American Indians/Aleuts: 66.3% high school, 21.8% college). Persons of Spanish Origin (any race) had the lowest proportions of persons who had completed both high school and college (55% high school, 20.7% college).
- o The median family income was \$22,989. Whites had the highest median family income (\$23,269), followed closely by Asian and Pacific Islanders (\$23,308). The median family income for Blacks was \$17,228, and American Indians/Aleuts \$12,936, both significantly lower than the other racial groups. Families of Spanish Origin had a slightly higher median family income than American Indians/Aleuts (\$13,801).

#### E. Outer Suburbs

In 1980 the population of the outer suburbs had the following socio-economic characteristics:

- o The majority of the employed persons in the area worked in non-durable manufacturing, retail trade, and education.
- o 77.8% of males age 16 years and over were employed. 3.2% were "unemployed" and 19.0% were "not in the labor force".
- o Asians and Pacific Islanders had the highest proportions of males age 16 years and over employed in the civilian labor force (80.5%), followed by Whites (77.9%), American Indians/Aleuts (57.1%), and Blacks (55.4%). Males of Spanish Origin had a higher proportion of males employed than Blacks or American Indians/Aleuts (76.8%). American Indians/Aleuts had the highest proportion of males "unemployed" (10.7%), while Blacks had the highest proportion of males "not in the labor force" (41.5%).





- o 53.1% of females age 16 years and over were employed in the civilian labor force, 2.2% were unemployed and 44.7% were not in the labor force. Blacks had the highest proportion of females age 16 years and over employed in the civilian labor force (58.1%), followed by whites (53%), American Indians/Aleuts (51.4%), and Asian and Pacific Islanders (48.4%). Females of Spanish Origin (any race) had a higher proportion employed than either American Indians/Aleuts and Asian and Pacific Islanders (52.3%). American Indians/Aleuts had the highest proportion of females "unemployed", (20.8%), and females of Asian and Pacific Islander races had the lowest rate of labor force participation with 50.5% "not in the labor force".
- o 63.1% of the families in the outer suburbs were supported by two or more workers, while 29.5% had one worker, and 7.4% "no workers".
- o The majority of employed persons in the outer suburbs worked in administrative support and clerical, professional specialty, and executive, managerial and administrative occupations.
- o Over 84.4% of persons age 25 years and over in the outer suburbs had completed a high school education, 28.5% of these completed four years of college or more. Asian and Pacific Islanders had the highest proportion of persons who had completed both high school and college (87.2% high school; 53.8% college). Whites followed with 84.4% who had completed high school and 28.4% college, Blacks (80.8% high school, 28.3% college), and lastly American Indians/Aleuts (55.9% high school, 8.6% college). Persons of Spanish Origin had a higher proportion of people who had completed both high school and college (68% high school, 24.5% college).
- o The median family income in the outer suburbs was \$26,841. Asian and Pacific Islanders had the highest median family income (\$30,499), followed by Whites (\$26,644), Blacks (\$24,088), and American Indians/Aleuts (\$17,499). Persons of Spanish Origin (any race) had a median family income of \$10,317.



APPENDIX AINDUSTRYI. Agriculture, Forestry, Fishing, Mining

Production: Crops, Livestock

Services: Horticulture, Forestry, Fishing, Hunting, Mining

II. ConstructionIII. Nondurable Manufacturing

Food and Kindred Products

Tobacco Manufacturers

Textile Mill Products

Apparel

Paper and Allied Products

Printing, Publishing and Allied Industries

Chemicals and Allied Products

Petroleum and Coal Products

Rubber and Miscellaneous Plastics Products

Leather and Leather Products

IV. Durable Manufacturing

Lumber and Wood Products

Furniture and Fixtures

Stone, Clay, Glass, Concrete Products

Metal Industries

Machinery and Electrical Equipment and Supplies

Transportation Equipment

Professional and Photographic Equipment

Toys, Amusement and Sporting Goods

V. Transportation

Railroads, Subway, Bus lines, Taxi Cab

Trucking, Warehousing and Storage

U.S. Postal Service

Water and Air Transportation

Pipelines - Except Natural Gas

Services Incidental to Transportation

VI. Communications

Radio, Television Broadcasting

Telephone

Telegraph and Miscellaneous Communications Services

VII. Utilities and Sanitary Services

Electric Light and Power

Gas and Steam Supply Systems

Water Supply &amp; Irrigation

Sanitary Services



VIII. Wholesale Trade

Durable Goods (see listing)  
Nondurable Goods (see listing)

IX. Retail Trade

All Stores

X. Finance, Real Estate, Insurance

Banking, Savings and Loans  
Credit Agencies  
Security, Commodity Brokerage, Investments  
Insurance  
Real Estate (including insurance law offices)

XI. Business and Repair

Advertising  
Services to Buildings  
Commercial Research, Development, Testing Labs  
Personal Supply Services  
Business Management and Consulting Services  
Computer and Data Processing Services  
Automotive Services, Repair  
Electrical Repair and Other Miscellaneous Repair

XII. Personal, Entertainment, Recreation Services

Hotels, Motels, Lodges  
Laundry, Cleaning, Garment Services  
Beauty Shops, Barber Shops  
Shoe Repair Shops, Dressmaking Shops  
Theatres, Motion Pictures  
Bowling Alleys, Billiard and Pool Rooms

XIII. Professional and Related Services

Doctors Offices  
Hospitals  
Nursing, Health, Legal Services  
Elementary Schools, Colleges, Universities  
Business, Trade, Vocational Schools  
Libraries, Museums, Art Galleries, Zoo  
Job Training, Rehabilitation Services, Day Care  
Residential Care  
Social Services - general  
Religious and Other Membership Organizations  
Engineering, Architect, Surveying Services  
Accounting, Auditing, Bookkeeping  
Noncommercial Educational and Scientific Research



XIV. Public Administration

General Government

Justice, Public Order, Security

Finance, Taxation, Monetary Policy

Administration of Human Resource Programs

Environmental Quality/Housing

Economic Programs

National Security and Internal Affairs





## APPENDIX B

### OCCUPATION

#### I. Executive, Administrative, Managerial Occupations

Legislators	Personnel, training, labor relations
Administrators	Buyers
Financial Managers	Purchasing agents
Other Managers	Business and promotion agents
Accountants	Construction Inspectors
Management Analysts	Other management related occupations

#### II. Professional Specialty Occupations

Engineers, Architects, Surveyors	Social, Recreation, Religious workers
Mathematical and Computer Scientists	Lawyers, Judges
Natural Scientists	Writers, Entertainers, Athletes
Health Diagnosing Occupations	
Health Assessing and Treating Occupations	
Teachers -- All Levels	
Counselors	
Librarians	
Social Scientists/Urban Planners	

#### III. Technical Occupations

Health Technologists and Technicians  
Engineering Technologists  
Science Technicians  
Navigators, Airline Controllers  
Broadcasting Operators  
Computer Programmers  
Legal Assistants

#### IV. Sales Occupations

Sales Representatives  
Sales Workers  
Supervisors and Proprietors (sales occupations)

#### VI. Administrative Support Occupations

Supervisors, Administrative Support Occupations  
Computer Equipment Operators  
Secretaries, Stenographers, Typists  
Information Clerks  
Records Processing Occupations  
Office Machine Operators  
Material Recording, Scheduling, Distributing Clerks  
Adjusters and Investigators  
Other Administrative Support.



VII. Service -- Private Household

Launderers  
 Cooks (household)  
 Housekeepers, Butlers  
 Private Child Care Workers  
 Housecleaners and Servants

VIII. Service -- Protective Occupations

Fire Department Occupations  
 Police Department Occupations  
 Security Guards  
 Detectives

IX. Service -- Except Protective and Household

Food Preparation and Service Occupations  
 Health Service Occupations  
     Health Aides  
     Dental Assistants  
     Nursing Aides, Orderlies  
 Cleaning and Building Service Occupations  
 Personal Service Occupations

X. Farming, Forestry, Fishing

Farm Operators and Managers  
 Farm Occupations, except Managerial  
 Forestry and Logging Occupations  
 Fishers, Hunters, Trappers

XI. Precision Production, Craft, and Repair

Mechanics and Repairers  
 Construction Trades  
 Extractive Occupations  
 Precision Production Occupations  
     Metal Working  
     Woodworking  
     Textile, Apparel, Furnishings  
     Food Production  
     Inspectors, Testers  
     Plant and System Operators

XII. Operators, Fabricators, Laborers (Occupations other than Precision)

Machine Operators, Assemblers, Inspectors  
 Fabricators, Assemblers, Hand Working Occupations  
 Production Inspectors, Testers, Samplers, Weighers



XIII. Transportation and Material Moving Occupations

Motor Vehicle Operators  
Transportation Occupations (other than motor vehicle)  
Railroad  
Water Transportation  
Material Moving Equipment Operators

XIV. Handlers, Equipment Cleaners, Helpers, Laborers

Helpers -- Mechanic and Repair  
Helpers -- Construction and Extrative  
Construction Laborers  
Production Helpers  
Freight, Stock, Material handlers  
Garage, Service Station  
Vehicle Washers and Equipment Cleaners  
Hand Packers  
Laborers - other





















